



## VRLA Rechargeable Battery

# HRL50-12



### 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
- Absorbent Glass Mat technology for efficient gas recombination
- The power density at 5 min~15min discharging rate is 30% higher than BP series
- Service Life — 12 Years. According to Eurobat (20 °C) — Long Life

### APPLICATIONS

- UPS
- Wheelchairs
- Golf-Carts
- Wind Power
- Medical Equipments
- Jump Starter



### SPECIFICATIONS

|                             |                                                                                                          |
|-----------------------------|----------------------------------------------------------------------------------------------------------|
| Nominal Voltage             | 12 V                                                                                                     |
| Nominal Capacity            | 48Ah @ 10 hour rate F.V.(1.75V/cell)                                                                     |
| Approx. Weight              | 15.3Kg(33.74lbs.)                                                                                        |
| Terminals                   | B2 (Fitting M5 bolt & nut) , I1 and I2 are optional                                                      |
| Internal Resistance         | ≤5mΩ (Fully Charged )                                                                                    |
| Max. Discharge Current      | 600 A (5 sec.)                                                                                           |
| Max. Charge Current         | 14.4 A                                                                                                   |
| Operating Temperature Range | Charge : 0°C~40°C(32°F~104°F)<br>Discharge : -20°C~50°C(-4°F~122°F)<br>Storage. : -20°C~40°C(-4°F~104°F) |
| Container Material          | Standard: ABS( UL94 HB) HRL50-12<br>Optional: Flame Retardant ABS(UL94 V-0) HRL50-12FR                   |

**UL**  
MH19884



- IEC 61056-1
- JIS C 8702-1
- GB/T 19639.1

| DIMENSION(mm/inch)                                                                                                                                                          | OUTER DIMENSIONS | TERMINAL TYPE                                                                                                                                                                        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Length</b><br>197±1.5 (7.76±0.06)<br><b>Width</b><br>165±1.5 (6.50±0.06)<br><b>Container Height</b><br>171±1.5 (6.73±0.06)<br><b>Total Height</b><br>171±1.5 (6.73±0.06) |                  | <div> <b>Terminal B2</b><br/> </div> <div> <b>Terminal I1</b><br/> </div> <div> <b>Terminal I2</b><br/> </div> <p>Terminal Hardware Initial Torque: B2/I1(4.0Nm±5%),I2(5.5Nm±5%)</p> |

| Constant power discharge characteristics at 25 °C/77 °F |                   |        |        |        |        |        | Unit: W |        |         |
|---------------------------------------------------------|-------------------|--------|--------|--------|--------|--------|---------|--------|---------|
| F.V.<br>(V/cell)                                        | Discharge<br>Time | 5 Min  | 10 Min | 15 Min | 20 Min | 30 Min | 40 Min  | 50 Min | 120 Min |
| 1.80V                                                   |                   | 2050.0 | 1400.0 | 1014.0 | 865.0  | 658.0  | 500.0   | 418.0  | 202.8   |
| 1.70V                                                   |                   | 2450.0 | 1563.0 | 1103.0 | 916.0  | 685.0  | 519.0   | 431.0  | 206.7   |
| 1.60V                                                   |                   | 2625.0 | 1644.0 | 1153.0 | 950.0  | 700.0  | 531.0   | 440.0  | 210.0   |
| 1.50V                                                   |                   | 2700.0 | 1675.0 | 1178.0 | 965.0  | 709.0  | 538.0   | 445.0  | 211.1   |
| 1.40V                                                   |                   | 2750.0 | 1698.0 | 1191.0 | 974.0  | 714.0  | 541.0   | 449.0  | 211.7   |
| 1.30V                                                   |                   | 2775.0 | 1713.0 | 1200.0 | 980.0  | 718.0  | 544.0   | 451.0  | 212.2   |

  

| Constant current discharge characteristics at 25 °C/77 °F |                   |        |        |        |        |        | Unit: A |        |         |
|-----------------------------------------------------------|-------------------|--------|--------|--------|--------|--------|---------|--------|---------|
| F.V.<br>(V/cell)                                          | Discharge<br>Time | 5 Min  | 10 Min | 15 Min | 20 Min | 30 Min | 40 Min  | 50 Min | 120 Min |
| 1.80V                                                     |                   | 183.04 | 122.81 | 87.72  | 74.19  | 55.76  | 42.05   | 34.98  | 16.90   |
| 1.70V                                                     |                   | 222.73 | 137.11 | 95.42  | 78.56  | 58.05  | 43.65   | 36.07  | 17.23   |
| 1.60V                                                     |                   | 238.64 | 144.21 | 99.74  | 81.48  | 59.32  | 44.66   | 36.82  | 17.50   |
| 1.50V                                                     |                   | 245.45 | 146.93 | 101.90 | 82.76  | 60.08  | 45.25   | 37.24  | 17.59   |
| 1.40V                                                     |                   | 250.00 | 148.95 | 103.03 | 83.53  | 60.51  | 45.50   | 37.57  | 17.64   |
| 1.30V                                                     |                   | 252.27 | 150.26 | 103.81 | 84.05  | 60.85  | 45.75   | 37.74  | 17.68   |

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