

## VRLA AGM Battery

BT-12M7.2AT[12V7.2Ah]



### General Features

- Designed floating charging service life: 8 years (25°C)
- Sealed and maintenance free operation
- Safety valve installation for explosion proof
- Low self-discharge characteristic
- Wide operating temperature range from 0°C~40°C
- Lead Aluminum calcium Tin alloy high energy, prevent corrosion

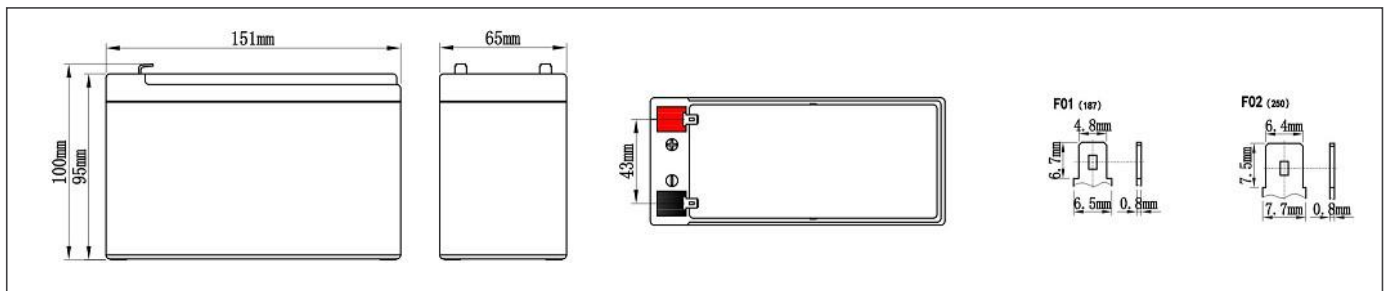
### Application

- DC power supply
- UPS/EPS power supply
- Electrical devices & instruments
- Security and fire alarm systems
- Telecom stations and power stations
- Medical equipments
- Emergency lighting systems

### Physical Specifications

| Nominal Voltage | Nominal Capacity (20HR) | Dimension |        |        |         | Weight ±3%             | Internal Resistance (In full charge status) | Standard Terminals |
|-----------------|-------------------------|-----------|--------|--------|---------|------------------------|---|--------------------|
|                 |                         | L         | W      | H      | TH      |                        |   |                    |
| 12V             | 7.2AH                   | 151±2mm   | 65±2mm | 95±2mm | 100±2mm | Approx2.10kg (4.63lbs) | ≈15.4 mΩ                                    | F01/F02 (standard) |

### Dimensions



### Battery Discharge Table

| End Voltage (V)   | Minute (M) |       |       |       |       |       | Hour (H) |       |       |       |       |       |       |       |       |       |
|---|------------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|   | 5          | 10    | 15    | 20    | 30    | 45    | 1        | 1.5   | 2     | 3     | 4     | 5     | 6     | 8     | 10    | 20    |
| Constant Current Discharge Data Sheet (Amperes at 25°C) |            |       |       |       |       |       |          |       |       |       |       |       |       |       |       |       |
| 10.20   | 26.78      | 17.45 | 13.69 | 9.82  | 6.98  | 5.06  | 4.32     | 3.45  | 2.568 | 1.944 | 1.481 | 1.240 | 1.115 | 0.833 | 0.685 | 0.367 |
| 10.50   | 26.58      | 17.26 | 13.49 | 9.73  | 6.91  | 5.01  | 4.29     | 3.39  | 2.479 | 1.874 | 1.439 | 1.220 | 1.099 | 0.823 | 0.679 | 0.363 |
| 10.80   | 26.28      | 17.06 | 13.39 | 9.64  | 6.85  | 4.96  | 4.26     | 3.32  | 2.380 | 1.815 | 1.408 | 1.200 | 1.083 | 0.813 | 0.672 | 0.358 |
| Constant Power Discharge Data Sheet (Watt at 25°C)      |            |       |       |       |       |       |          |       |       |       |       |       |       |       |       |       |
| 10.20   | 287.6      | 207.3 | 168.0 | 115.4 | 94.87 | 69.16 | 52.61    | 40.35 | 30.36 | 21.67 | 17.24 | 14.28 | 13.09 | 10.06 | 8.14  | 4.38  |
| 10.50   | 275.7      | 200.3 | 162.9 | 114.3 | 92.90 | 67.56 | 51.78    | 39.76 | 29.93 | 21.17 | 16.83 | 14.12 | 12.96 | 9.98  | 8.01  | 4.32  |
| 10.80   | 261.8      | 193.4 | 157.7 | 113.1 | 90.21 | 65.85 | 50.92    | 39.17 | 29.50 | 20.81 | 16.43 | 13.95 | 12.82 | 9.88  | 7.88  | 4.26  |

**NOTE :** The battery should be charged within 6 months of storage, Otherwise, permanent loss of capacity might occur as a result of sulfation

## Constant-Voltage Charge

| Rated Capacity         |        |
|------------------------|--------|
| 20 hour rate (0.36A)   | 7.21AH |
| 10 hour rate (0.72A)   | 6.70AH |
| 5 hour rate (1.224A)   | 5.80AH |
| 27 minute rate ( 7.2A) | 3.60AH |
| 7 minute rate (21.6A)  | 2.75AH |

| Capacity affected by Temperature |      |
|----------------------------------|------|
| 40°C(104°F)                      | 103% |
| 25°C(77°F)                       | 100% |
| 0°C(32°F)                        | 86%  |

| Cycle Application  |
|--|
| 1. Limit initial current less than 1.8A.   |
| 2. Charge until battery voltage (under charge) reaches 14.1V to 14.4V at 25°C(77°F). |
| 3. Hold at 14.1V to 14.4V until current drop to under 0.0432A for at least 3 hours.  |
| 4. Temperature compensation coefficient of charging voltage is -30mV/°C.             |

| Standby Service   |
|---|
| 1. Hold battery across constant voltage source of 13.6to 13.8 volts with current limit 1.8A continuously .When held at this voltage , the battery will seek its own current level and maintain itself in a fully charge status. |
| 2. Temperature compensation coefficient of charging voltage is -18mV/°C.  |

## Performance Characteristics

