

## VRLA BATTERY

The battery is designed with AGM technology, high performance plates and electrolyte to gain extra power output for common power backup system applications widely used in the field of UPS, Emergency Lighting System and other backup applications.

## **General Feature**

Sealed and maintenance free operation.

Non-Spillable construction design.

ABS containers and covers (UL94HB, UL94V-0) optional.

Safety valve installation for explosion proof.

High quality and high reliability.

Exceptional deep discharge recovery performance.

Low self-discharge characteristic.

Flexibility design for multiple install positions.

## **Application**

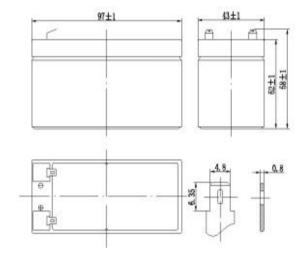
Alarm System Medical Equipment

Cable Television UPS

Power tools Power tools

Emergency Power System Control Equipment

Security System Toys



| CONSTRUCTION |                |                |           |       |              |          |            |               |  |
|--------------|----------------|----------------|-----------|-------|--------------|----------|------------|---------------|--|
| Component    | Positive plate | Negative plate | Container | Cover | Safety valve | Terminal | Separator  | Electrolyte   |  |
| Raw material | Lead dioxide   | Lead           | ABS       | ABS   | Rubber       | Copper   | Fiberglass | Sulfuric acid |  |

| TECHNOLOGY PARAMETER   |   |                     |                     |                   |  |  |  |  |  |
|------------------------|---|---------------------|---------------------|-------------------|--|--|--|--|--|
| Battery model          | MK12-1.3  |                     |                     |                   |  |  |  |  |  |
| Designed Floating Life | 5 Years   |                     |                     |                   |  |  |  |  |  |
| Compositu              | 20hR(0.065A, 10.5V)   | 10hR(0.127A, 10.5V) | 5hR(0.22A, 10.5V)   | 1hR(0.86A, 9.60V) |  |  |  |  |  |
| Capacity               | 1.3Ah   | 1.27Ah              | 1.1Ah               | 0.86Ah            |  |  |  |  |  |
| Dimensions             | Length  | Width               | Height              | Total Height      |  |  |  |  |  |
| Dimensions             | 97±1mm  | 43±1mm              | 52±1mm              | 58±1mm            |  |  |  |  |  |
| Approx. weight (±3%)   | 0.51Kg  |                     |                     |                   |  |  |  |  |  |
| Internal resistance    | Full charged at 25 °C: Approx. 95mOhms                                  |                     |                     |                   |  |  |  |  |  |
| Self-discharge         | 3% of capacity declined per month at 25 $^{\circ}{\mathbb C}$ (average) |                     |                     |                   |  |  |  |  |  |
| Capacity Affected      | Capacity Affected 40 °C   |                     | 0 ℃                 | -15 ℃             |  |  |  |  |  |
| by Temp.(20HR)         | by Temp.(20HR) 102%   |                     | 85%                 | 65%               |  |  |  |  |  |
| Chargo Voltago (25°C)  | Cycle us  | e                   | Float use           |                   |  |  |  |  |  |
| Charge Voltage (25 ℃)  | 14.5-14.9V(-30mV/℃), m  | ax. Current: 0.39A  | 13.6-13.8V(-20mV/℃) |                   |  |  |  |  |  |



| End Point  | 5min | 10min | 15min | 30min | 1h   | 3h   | 5h   | 10h   | 20h   |
|------------|------|-------|-------|-------|------|------|------|-------|-------|
| Volts/Cell |      |       |       |       |      |      |      |       |       |
| 1.60V      | 5.00 | 3.33  | 2.53  | 1.45  | 0.86 | 0.36 | 0.24 | 0.133 | 0.068 |
| 1.65V      | 4.75 | 3.18  | 2.41  | 1.40  | 0.84 | 0.35 | 0.23 | 0.131 | 0.068 |
| 1.70V      | 4.47 | 3.00  | 2.28  | 1.34  | 0.82 | 0.34 | 0.22 | 0.128 | 0.066 |
| 1.75V      | 4.19 | 2.82  | 2.16  | 1.27  | 0.79 | 0.32 | 0.22 | 0.127 | 0.065 |
| 1.80V      | 3.91 | 2.67  | 2.03  | 1.21  | 0.75 | 0.31 | 0.21 | 0.124 | 0.064 |

| End Point  | - 5min 1 | 10min    | 15min | 30min | 1h   | 3h   | 5h   | 10h  | 20h  |
|------------|----------|----------|-------|-------|------|------|------|------|------|
| Volts/Cell |          | 10111111 |       |       |      |      |      |      |      |
| 1.60V      | 9.25     | 6.15     | 4.70  | 2.72  | 1.61 | 0.68 | 0.45 | 0.25 | 0.13 |
| 1.65V      | 8.74     | 5.85     | 4.45  | 2.60  | 1.58 | 0.65 | 0.43 | 0.25 | 0.13 |
| 1.70V      | 8.18     | 5.49     | 4.20  | 2.47  | 1.53 | 0.63 | 0.42 | 0.24 | 0.13 |
| 1.75V      | 7.62     | 5.13     | 3.95  | 2.34  | 1.46 | 0.60 | 0.40 | 0.24 | 0.12 |
| 1.80V      | 7.03     | 4.81     | 3.68  | 2.19  | 1.37 | 0.57 | 0.39 | 0.23 | 0.12 |

