

The rechargeable batteries are lead-lead dioxide systems. The dilute sulfuric acid electrolyte is absorbed by separators and plates and thus immobilized. Should the battery be accidentally overcharged producing hydrogen and oxygen, special one-way valves allow the gases to escape thus avoiding excessive pressure build-up. Otherwise, the battery is completely sealed and is, therefore, maintenance-free, leak proof and usable in any position.

### Battery Construction

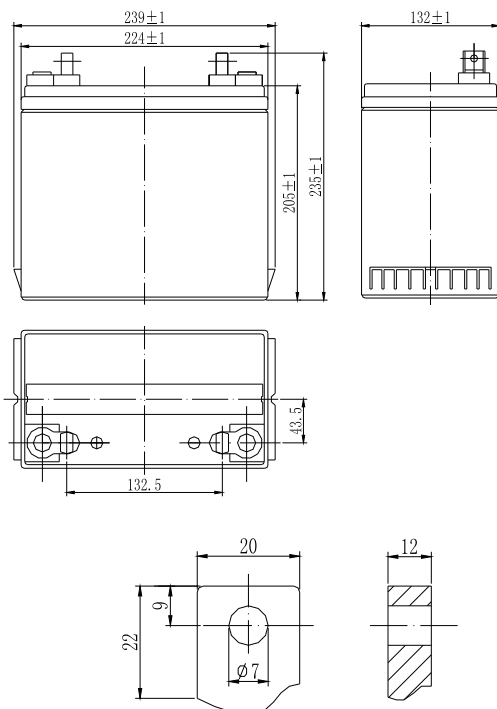
| Component    | Positive plate | Negative plate | Container | Cover | Safety valve | Terminal | Separator  | Electrolyte   |
|--------------|----------------|----------------|-----------|-------|--------------|----------|------------|---------------|
| Raw material | Lead dioxide   | Lead          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

### General Features

- Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99% and freedom from electrolyte maintenance or water adding.
- Not restricted for air transport-complies with IATA/ICAO Special Provision A67.
- UL-recognized component.
- Can be mounted in any orientation.
- Computer designed lead, calcium tin alloy grid for high power density.
- Long service life, float or cyclic applications.
- Maintenance-free operation.
- Low self discharge.

### Dimensions and Weight

|                          |            |
|--------------------------|------------|
| Length(mm / inch)        | 239 / 9.41 |
| Width(mm / inch)         | 132 / 5.20 |
| Height(mm / inch)        | 205 / 8.07 |
| Total Height(mm / inch)  | 235 / 9.25 |
| Approx. Weight(Kg / lbs) | 18 / 39.7  |



### Performance Characteristics

|                                                    |            |
|----------------------------------------------------|------------|
| Nominal Voltage                                    | 12V        |
| Number of cell                                     | 6          |
| Design Life                                        | 10 years   |
| Nominal Capacity 77°F(25°C)                        |            |
| 20 hour rate (2.75A, 10.5V)                        | 55Ah       |
| 10 hour rate (5.2A, 10.5V)                         | 52Ah       |
| 5 hour rate (9.23A, 10.5V)                         | 46.15Ah    |
| 1 hour rate (35.1A, 9.6V)                          | 35.1Ah     |
| Internal Resistance                                |            |
| Fully Charged battery 77°F(25°C)                   | 5.8mOhms   |
| Self-Discharge                                     |            |
| 3% of capacity declined per month at 20°C(average) |            |
| Operating Temperature Range                        |            |
| Discharge                                          | -20~60°C   |
| Charge                                             | -10~60°C   |
| Storage                                            | -20~60°C   |
| Max. Discharge Current 77°F(25°C)                  | 550A(5s)   |
| Short Circuit Current                              | 1400A      |
| Charge Methods: Constant Voltage Charge 77°F(25°C) |            |
| Cycle use                                          | 14.4-14.7V |
| Maximum charging current                           | 16.5A      |
| Temperature compensation                           | -30mV/°C   |
| Standby use                                        | 13.6-13.8V |
| Temperature compensation                           | -20mV/°C   |

### Discharge Constant Current (Amperes at 77°F25°C)

| End Point Volts/Cell | 5min | 10min | 15min | 30min | 1h   | 3h   | 5h   | 10h  | 20h  |
|----------------------|------|-------|-------|-------|------|------|------|------|------|
| 1.60V                | 175  | 129   | 99.4  | 59.2  | 35.1 | 14.6 | 9.82 | 5.35 | 2.76 |
| 1.65V                | 165  | 124   | 95.4  | 57.4  | 34.2 | 14.2 | 9.57 | 5.30 | 2.76 |
| 1.70V                | 155  | 115   | 90.6  | 55.6  | 33.3 | 13.9 | 9.40 | 5.25 | 2.76 |
| 1.75V                | 145  | 106   | 85.8  | 53.8  | 32.5 | 13.6 | 9.23 | 5.20 | 2.75 |
| 1.80V                | 134  | 99.8  | 79.5  | 51.9  | 31.7 | 13.3 | 9.06 | 5.15 | 2.75 |

### Discharge Constant Power (Watts at 77°F25°C)

| End Point Volts/Cell | 5min | 10min | 15min | 30min | 45min | 1h   | 2h   | 3h   | 5h   |
|----------------------|------|-------|-------|-------|-------|------|------|------|------|
| 1.60V                | 318  | 238   | 185   | 111   | 85.3  | 68.9 | 41.1 | 29.1 | 18.8 |
| 1.65V                | 300  | 225   | 177   | 109   | 84.0  | 67.3 | 40.2 | 28.5 | 18.6 |
| 1.70V                | 281  | 213   | 169   | 107   | 82.3  | 65.8 | 39.4 | 27.9 | 18.2 |
| 1.75V                | 261  | 200   | 162   | 105   | 80.5  | 64.3 | 38.4 | 27.3 | 18.0 |
| 1.80V                | 248  | 186   | 154   | 104   | 78.4  | 64.3 | 37.4 | 26.7 | 17.9 |

