

# 6FM100E-X 12V 100Ah(10hr)

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       | Copper   | Fiberglass | Sulfuric acid |

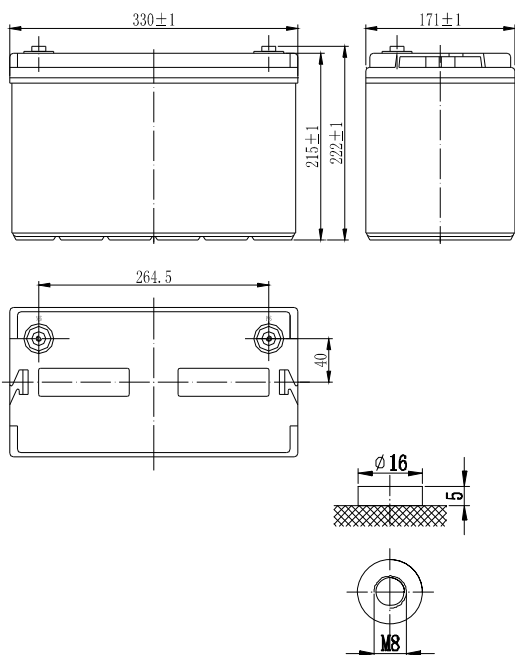
## General Features

- 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)        | 330 / 12.99 |
| Width(mm / inch)         | 171 / 6.73  |
| Height(mm / inch)        | 215 / 8.46  |
| Total Height(mm / inch)  | 222 / 8.74  |
| Approx. Weight(Kg / lbs) | 29 / 63.9   |

\* Weight deviation: ± 3%



## Performance Characteristics

|  |              |
|--|--------------|
| Nominal Voltage                                    | 12V          |
| Number of cell                                     | 6            |
| Design Life  | 10 years     |
| Nominal Capacity 77°F(25°C)                        |              |
| 10 hour rate (10.0A, 10.8V)                        | 100Ah        |
| 5 hour rate (16.6A, 10.5V)                         | 83Ah         |
| 1 hour rate (61A, 9.6V)                            | 61Ah         |
| Internal Resistance                                |              |
| Fully Charged battery 77°F(25°C)                   | ≤ 5.7mOhms   |
| 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)                  | 900A(5s)     |
| Short Circuit Current                              | 2100A        |
| Charge Methods: Constant Voltage Charge 77°F(25°C) |              |
| Cycle use  | 2.40-2.45VPC |
| Maximum charging current                           | 30A          |
| Temperature compensation                           | -30mV/°C     |
| Standby use  | 2.20-2.28VPC |
| Temperature compensation                           | -20mV/°C     |

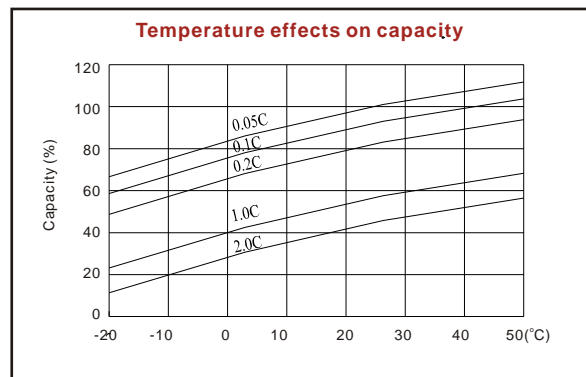
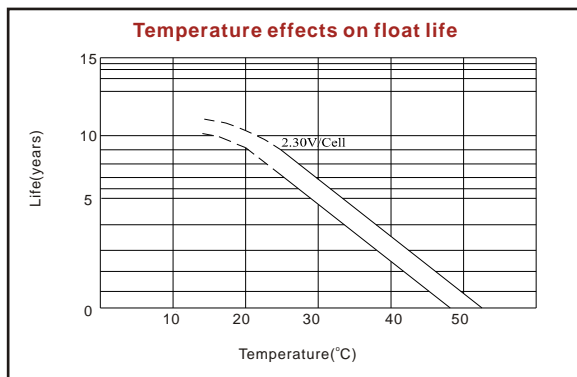
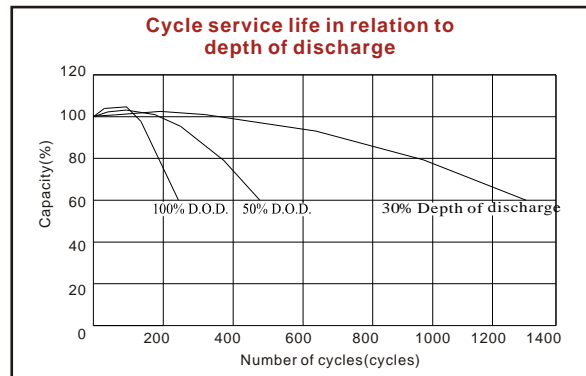
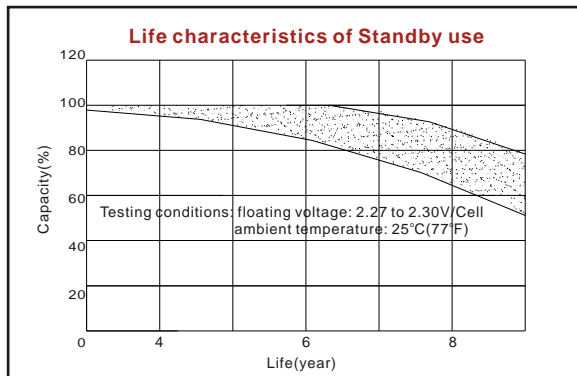
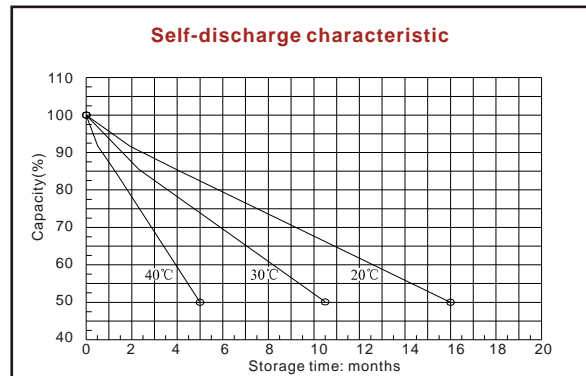
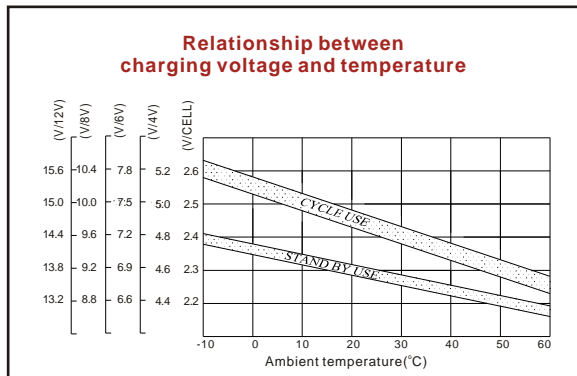
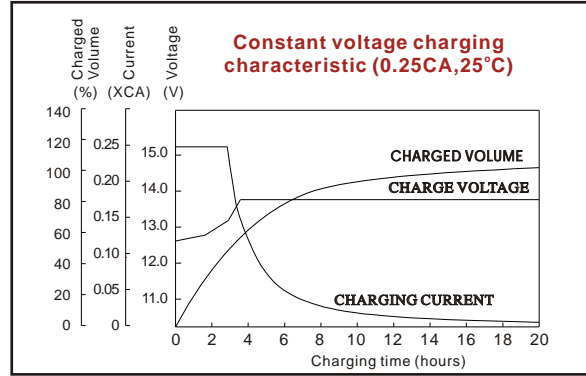
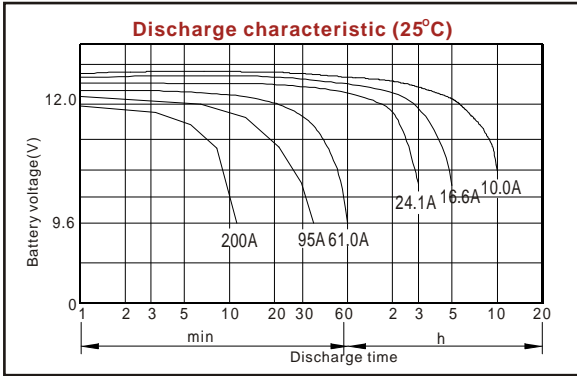
## Discharge Constant Current (Amperes at 77°F25°C)

| End Point Volts/Cell | 10min | 15min | 30min | 1h   | 3h   | 5h   | 10h  | 20h  |
|----------------------|-------|-------|-------|------|------|------|------|------|
| 1.60V                | 210   | 173   | 98.9  | 61.0 | 25.1 | 17.6 | 10.8 | 5.50 |
| 1.65V                | 197   | 164   | 95.0  | 60.6 | 24.6 | 17.3 | 10.6 | 5.45 |
| 1.70V                | 182   | 156   | 92.2  | 59.7 | 24.1 | 17.0 | 10.4 | 5.40 |
| 1.75V                | 170   | 145   | 89.3  | 58.9 | 23.5 | 16.6 | 10.2 | 5.35 |
| 1.80V                | 156   | 136   | 87.4  | 57.1 | 22.8 | 16.3 | 10.0 | 5.30 |

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

| End Point Volts/Cell | 10min | 15min | 30min | 45min | 1h  | 2h   | 3h   | 5h   |
|----------------------|-------|-------|-------|-------|-----|------|------|------|
| 1.60V                | 372   | 304   | 186   | 138   | 119 | 68.2 | 48.4 | 33.8 |
| 1.65V                | 353   | 299   | 180   | 134   | 117 | 67.0 | 47.8 | 33.6 |
| 1.70V                | 335   | 290   | 176   | 132   | 116 | 65.8 | 47.3 | 33.3 |
| 1.75V                | 317   | 279   | 170   | 129   | 112 | 64.6 | 46.7 | 33.2 |
| 1.80V                | 296   | 270   | 164   | 126   | 109 | 63.9 | 45.9 | 32.9 |

(Note)The above characteristics data are average values obtained within three charge/discharge cycles not the minimum values. All data shall be changed without notice, Vision reserves the right to explain and update the information contained hereinto.



ISO9001:2008

MH25860

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