

## 6FM120E-X 12V 120Ah(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

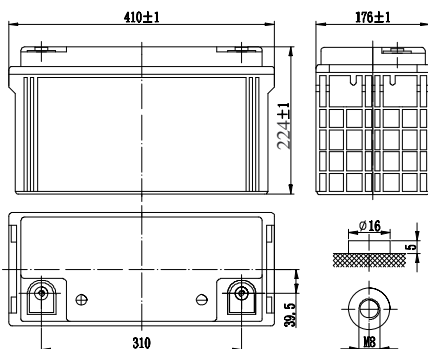
| Component    | Positive plate | Negative plate | Container | Cover | Safety valve | Terminal | Separator  | Electrolyte   |
|--------------|----------------|----------------|-----------|-------|--------------|----------|------------|---------------|
| Raw material | Lead dioxide   | Lead           | 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)        | 410 / 16.14 |
| Width(mm / inch)         | 176 / 6.93  |
| Height(mm / inch)        | 224 / 8.82  |
| Total Height(mm / inch)  | 224 / 8.82  |
| Approx. Weight(Kg / lbs) | 33.5 / 73.9 |



### Performance Characteristics

|  |  |
|--|--|
| Nominal Voltage                                    | 12V  |
| Number of cell                                     | 6  |
| Design Life  | 10 years   |
| Nominal Capacity 77°F(25°C)                        |  |
| 10 hour rate (12.0A, 10.8V)                        | 120Ah  |
| 5 hour rate (19.2A, 10.5V)                         | 96Ah   |
| 1 hour rate (73.3A, 9.6V)                          | 73.3Ah   |
| Internal Resistance                                |  |
| Fully Charged battery 77°F(25°C)                   | 4.4mOhms   |
| 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)                  | 950A(5s)   |
| Short Circuit Current                              | 2250A  |
| Charge Methods: Constant Voltage Charge 77°F(25°C) |  |
| Cycle use  | 2.30-2.35VPC                                       |
| Maximum charging current                           | 36A  |
| Temperature compensation                           | -30mV/°C   |
| Standby use  | 2.23-2.27VPC                                       |
| Temperature compensation                           | -20mV/°C   |

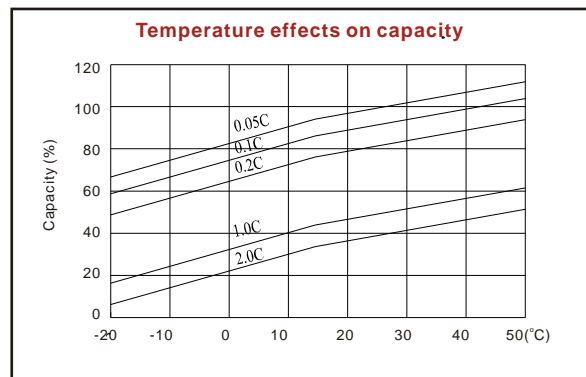
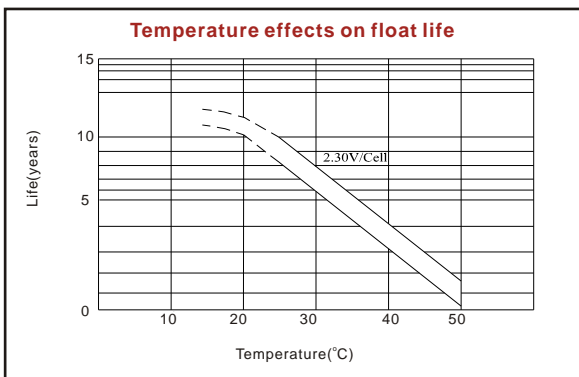
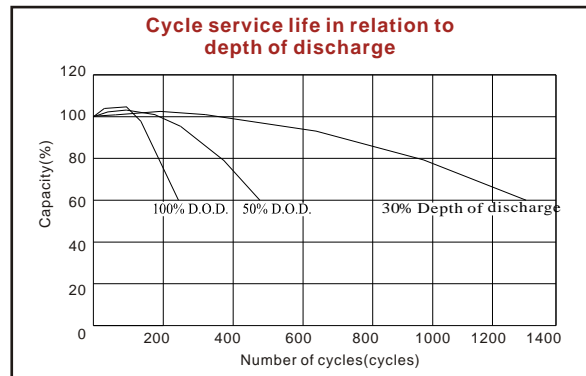
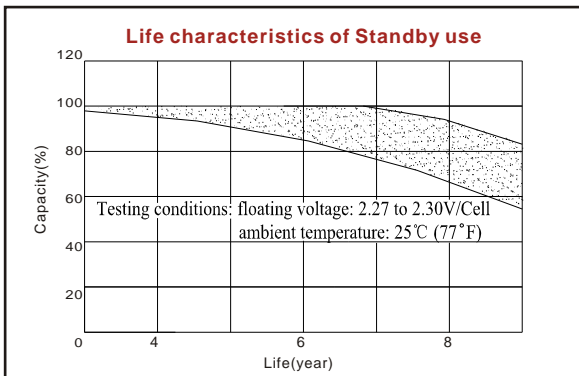
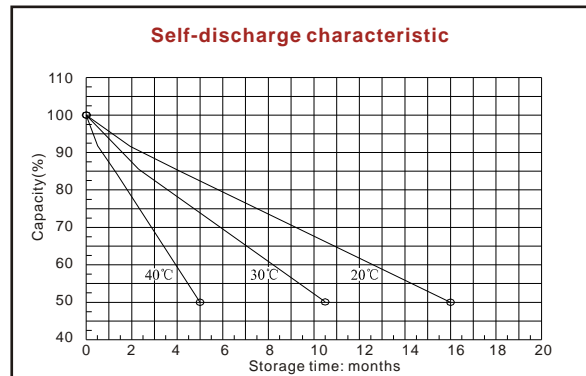
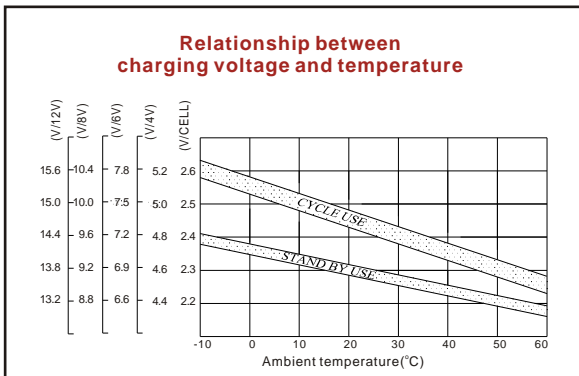
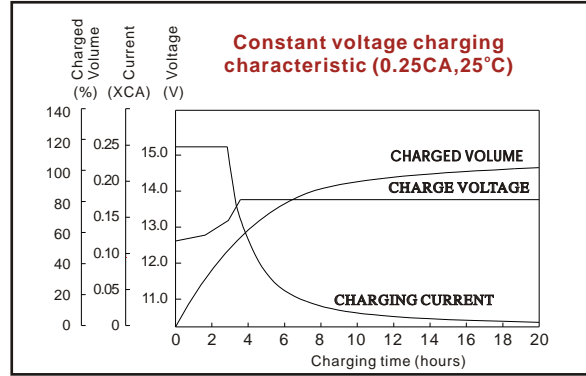
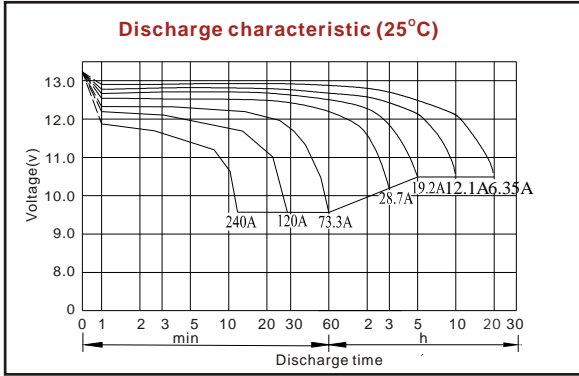
### Discharge Constant Current (Amperes at 77°F25°C)

| End Point Volts/Cell | 10min | 15min | 30min | 1h   | 3h   | 5h   | 10h  | 20h  |
|----------------------|-------|-------|-------|------|------|------|------|------|
| 1.60V                | 258   | 209   | 117   | 73.3 | 29.9 | 20.3 | 12.4 | 6.43 |
| 1.65V                | 244   | 201   | 114   | 72.8 | 29.3 | 20.1 | 12.3 | 6.41 |
| 1.70V                | 231   | 193   | 110   | 71.3 | 28.7 | 19.7 | 12.2 | 6.38 |
| 1.75V                | 217   | 184   | 106   | 69.1 | 28.0 | 19.2 | 12.1 | 6.35 |
| 1.80V                | 203   | 177   | 104   | 67.0 | 27.2 | 18.9 | 12.0 | 6.30 |

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

| End Point Volts/Cell | 10min | 15min | 30min | 45min | 1h  | 2h | 3h   | 5h   |
|----------------------|-------|-------|-------|-------|-----|----|------|------|
| 1.60V                | 460   | 367   | 225   | 159   | 147 | 82 | 58.0 | 40.7 |
| 1.65V                | 437   | 354   | 218   | 156   | 145 | 80 | 57.3 | 40.5 |
| 1.70V                | 414   | 343   | 211   | 153   | 143 | 79 | 56.6 | 40.2 |
| 1.75V                | 392   | 331   | 204   | 149   | 139 | 77 | 56.0 | 40.0 |
| 1.80V                | 367   | 319   | 198   | 146   | 134 | 75 | 55.0 | 39.6 |

(Note)The above characteristics data are average values obtained within three charge/discharge cycles not the minimum values.



ISO9001:2000

MH25860

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**Shenzhen Center Power Tech. Co., Ltd.**  
 Center Power Industrial Park, Tongfu Industrial District Dapeng Town, 518120 Shenzhen, China  
 Tel: (+86-755) 8431 8088 Fax: (+86-755) 8431 8038 E-mail: sales@vision-batt.com