



## 6FM4.5/12Volt 4.5Ah

### General Series Battery

General Series VRLA batteries are designed with AGM(Absorbent Glass Mat) technology, High performance plates and electrolyte to give extra power output for common power backup system. General Series Batteries are the general purpose batteries with 5 years floating design life at 25 C.



### Application

- ☆ Emergency Power System
- ☆ Communication equipment
- ☆ Telecommunication systems
- ☆ Uninterruptible power supplies
- ☆ Electric toy car and wheelchairs, etc
- ☆ Power tools
- ☆ Alarm system
- ☆ Marine equipment
- ☆ Medical equipment
- ☆ Fire and Security System

### General Features

- ☆ Heavy Duty Grid
- ☆ Mechanized assembly
- ☆ Non-spillable construction
- ☆ High Reliability and Stability
- ☆ Sealed and Maintenance-free
- ☆ Long Life and low self-discharge design

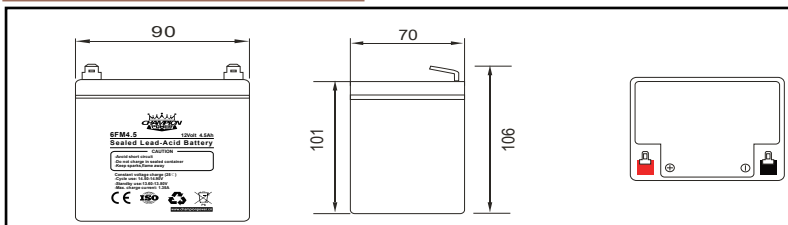
### Construction

- ☆ Positive.....Lead dioxide
- ☆ Electrolyte.....Sulfuric acid
- ☆ Separator.....Fiber glass
- ☆ Container.....ABS(UL94-HB) / Flame Retardant ABS (UL94-V0)
- ☆ Negative.....Lead
- ☆ Safety Valve.....EPDR
- ☆ Terminal.....Copper

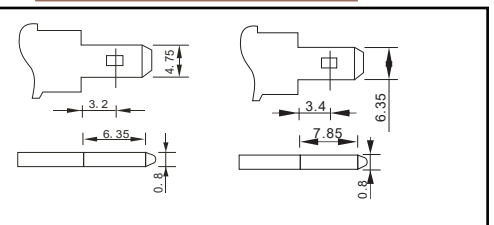
### Specification

|                                    |   |  |                         |                         |
|------------------------------------|---|--|-------------------------|-------------------------|
| Battery Model                      | Nominal Voltage                         |  | 12V                     |                         |
|                                    | Rated capacity (20Hour rate)            |  | 4.5Ah                   |                         |
|                                    | Cells Per battery                       |  | 6                       |                         |
| Dimension                          | Length                                  | Width  | Height                  | Total Height            |
|                                    | 90mm                                    | 70mm   | 101mm                   | 106mm                   |
| Approx Weight                      | 1.40Kg                                  |  |                         |                         |
| Internal Resistance                | Full charged at 25°C(77°F): Approx 35mΩ |  |                         |                         |
| Max.discharge current              | 67.5A(5s)                               |  |                         |                         |
| Floating design life @ 25°C (77°F) | 5 years                                 |  |                         |                         |
| Capacity @ 25°C (77°F)             | 20Hour rate(0.225A/10.5V)               | 10Hour rate(0.405A/10.8V)                              | 5Hour rate(0.65A/10.8V) | 1Hour rate(1.73A/10.5V) |
|                                    | 4.5Ah                                   | 4.05Ah   | 3.25Ah                  | 1.73Ah                  |
| Capacity affected by Temp(20 HR)   | 40°C (104°F)                            | 25°C (77°F)  | 0°C (32°F)              | -15°C(5°F)              |
|                                    | 102%                                    | 100%   | 85%                     | 65%                     |
| Self Discharge @ 25°C (77°F)       | After 3 months storage                  | After 6 months storage                                 | After 12 months storage |                         |
|                                    | 91%                                     | 82%  | 64%                     |                         |
| Charge method @ 25°C (77°F)        | Cycle Use                               | 14.5-14.9V (Initial charging current less than 1.35 A) |                         |                         |
|                                    | Float Use                               | 13.6-13.8V   |                         |                         |

### Outer dimension (mm)



### Terminal Type (mm)



### Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C (77°F)

| F.V / TIME |   | 5min   | 10min  | 15min | 30min | 1h    | 2h    | 3h    | 4h    | 5h   | 8h   | 10h  | 20h  |
|------------|---|--------|--------|-------|-------|-------|-------|-------|-------|------|------|------|------|
| 9.60V      | A | 16.20  | 10.58  | 7.88  | 5.18  | 2.70  | 1.58  | 1.17  | 0.93  | 0.79 | 0.52 | 0.43 | 0.23 |
|            | W | 171.72 | 112.31 | 84.26 | 55.89 | 29.43 | 17.17 | 12.87 | 10.23 | 8.68 | 5.79 | 4.75 | 2.58 |
| 10.20V     | A | 14.85  | 9.94   | 7.24  | 4.91  | 2.79  | 1.51  | 1.15  | 0.90  | 0.77 | 0.51 | 0.42 | 0.23 |
|            | W | 161.87 | 110.31 | 80.70 | 55.27 | 31.39 | 17.08 | 12.97 | 10.22 | 8.79 | 5.82 | 4.75 | 2.58 |
| 10.50V     | A | 13.77  | 9.50   | 6.75  | 4.76  | 2.70  | 1.48  | 1.13  | 0.86  | 0.77 | 0.51 | 0.41 | 0.23 |
|            | W | 151.49 | 106.82 | 76.28 | 54.29 | 30.78 | 16.96 | 12.88 | 9.83  | 8.80 | 5.82 | 4.76 | 2.59 |
| 10.80V     | A | 12.54  | 9.08   | 6.30  | 4.55  | 2.61  | 1.44  | 1.10  | 0.84  | 0.73 | 0.49 | 0.40 | 0.22 |
|            | W | 137.94 | 103.46 | 72.14 | 52.49 | 30.15 | 16.68 | 12.79 | 9.79  | 8.52 | 5.74 | 4.70 | 2.56 |
| 11.10V     | A | 10.85  | 8.55   | 5.85  | 4.23  | 2.48  | 1.41  | 1.06  | 0.82  | 0.70 | 0.48 | 0.39 | 0.21 |
|            | W | 122.55 | 98.75  | 67.86 | 49.49 | 28.96 | 16.45 | 12.43 | 9.73  | 8.25 | 5.66 | 4.65 | 2.52 |

Note: The above datas are average values. (Edition 2017-11)



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