

6FM100 12V 100Ah (20hr) Sealed Lead Acid (SLA) Battery

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

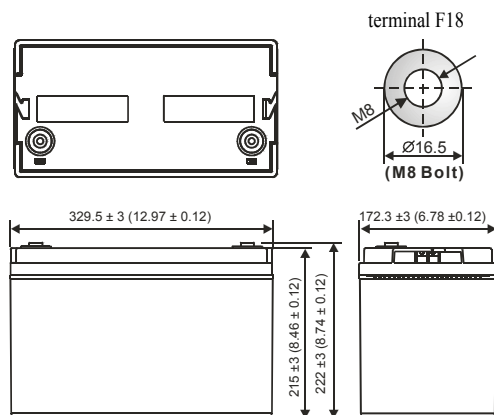
| Component | Positive plate | Negative plate | Container | Cover | Safety valve | Terminal | Separator | Electrolyte |
|--------------|----------------|----------------|-----------|-------|--------------|----------|------------|---------------|
| Raw material | Lead dioxide | Lead | ABS | ABS | Rubber | 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.
- Positive and negative plates in lead-calcium-tin alloy
- Stable quality & high reliability
- Sealed construction
- Maintenance-free operation
- UL-recognized component.
- Low pressure venting system
- Low self discharge
- High rate discharge
- Valve Regulated Lead Acid (VRLA) battery
- Six months shelf life at 25°C
- Design life 12 years at 25°C

Dimensions and Weight

| | |
|--------------------------|---------------|
| Length(mm / inch) | 329.5 / 12.97 |
| Width(mm / inch) | 172.3 / 6.78 |
| Height(mm / inch) | 215 / 8.46 |
| Total Height(mm / inch) | 222 / 8.74 |
| Approx. Weight(Kg / lbs) | 31.3 / 68.9 |



Performance Characteristics

| | |
|---|------------|
| Nominal Voltage | 12V |
| Number of cell | 6 |
| Design Life | 12 years |
| Nominal Capacity 77°F(25°C) | |
| 10 hour rate (10.0A, 10.8V) | 100Ah |
| 5 hour rate (17A, 10.2V) | 85Ah |
| 1 hour rate (60A, 9.6V) | 60Ah |
| Internal Resistance | |
| Fully Charged battery 77°F(25°C) | 4mOhms |
| Self-Discharge | |
| 3% of capacity declined per month at 25°C (average) | |
| Operating Temperature Range | |
| Discharge | -20~60°C |
| Charge | -10~60°C |
| Storage | -20~60°C |
| Max. Discharge Current 77°F(25°C) | 1,200A(5s) |
| Short Circuit Current | 2,100A |
| Charge Methods: Constant Voltage Charge 77°F(25°C) | |
| Cycle use | 14.4-14.8V |
| Maximum charging current | 30A |
| Temperature compensation | -30mV/°C |
| Standby use | 13.5-13.8V |
| Temperature compensation | -20mV/°C |

Discharge Rates in Watts to Various End Voltage at 25°C(77°F)

| End Voltage | 1.85V | 1.80V | 1.75V | 1.70V | 1.65V | 1.60V |
|-------------|-------|-------|-------|-------|-------|-------|
| 10 min | 342 | 370 | 397 | 414 | 433 | 465 |
| 15 min | 285 | 315 | 345 | 358 | 373 | 383 |
| 20 min | 250 | 272 | 299 | 303 | 319 | 333 |
| 30 min | 207 | 222 | 230 | 234 | 235 | 238 |
| 60 min | 123 | 132 | 140 | 141 | 143 | 145 |
| 180 min | 49.9 | 53.2 | 55.2 | 55.6 | 56.7 | 58.2 |
| 300 min | 33.4 | 35.5 | 37.3 | 37.7 | 38.0 | 38.3 |
| 600 min | 18.8 | 19.2 | 19.3 | 19.7 | 20.0 | 20.2 |
| 1200 min | 9.75 | 9.9 | 10.1 | 10.4 | 10.5 | 10.6 |

Discharge Rates in Amperes to Various End Voltage at 25°C(77°F)

| End Voltage | 1.85V | 1.80V | 1.75V | 1.70V | 1.65V | 1.60V |
|-------------|-------|-------|-------|-------|-------|-------|
| 10 min | 176 | 199 | 221 | 238 | 249 | 263 |
| 15 min | 151 | 168 | 182 | 194 | 202 | 212 |
| 20 min | 133 | 146 | 161 | 165 | 174 | 184 |
| 30 min | 107 | 114 | 120 | 121 | 122 | 123 |
| 60 min | 59.1 | 64.3 | 68.0 | 70.4 | 71.6 | 73.5 |
| 180 min | 27.3 | 28.1 | 28.6 | 29.5 | 29.7 | 30.1 |
| 300 min | 16.9 | 18.1 | 18.5 | 18.7 | 19.1 | 19.2 |
| 600 min | 9.40 | 10.2 | 10.3 | 10.4 | 10.5 | 10.6 |
| 1200 min | 5.05 | 5.16 | 5.22 | 5.43 | 5.49 | 5.54 |

(Note)The above characteristics data are average values.

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