



KB127SF1 12V 7Ah(20hr)

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

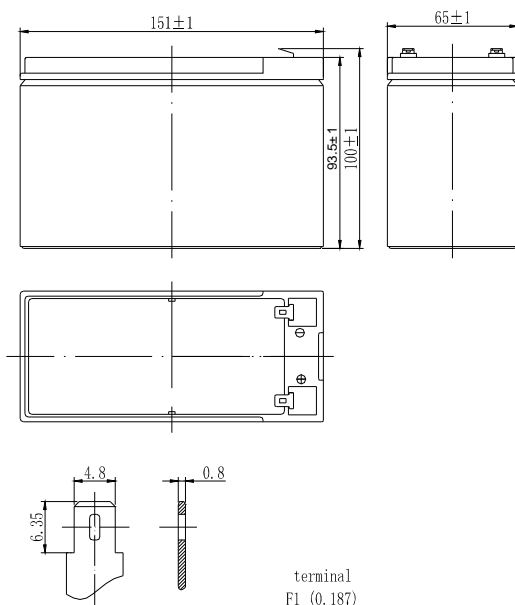
| | | | | | | | | |
|--------------|----------------|----------------|-----------|-------|--------------|----------|------------|---------------|
| Component | Positive plate | Negative plate | Container | Cover | Safety valve | Terminal | Separator | Electrolyte |
| Raw material | Lead dioxide | Lead | 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) | 151 / 5.94 |
| Width(mm / inch) | 65 / 2.56 |
| Height(mm / inch) | 93.5 / 3.68 |
| Total Height(mm / inch) | 100 / 3.94 |
| Approx. Weight(Kg / lbs) | 1.90 / 4.17 |



Performance Characteristics

| | |
|--|------------|
| Nominal Voltage | 12V |
| Number of cell | 6 |
| Design Life | 3-5 years |
| Nominal Capacity 77°F(25°C) | |
| 20 hour rate (0.35A, 10.5V) | 7Ah |
| 10 hour rate (0.68A, 10.5V) | 6.8Ah |
| 5 hour rate (1.13A, 10.5V) | 5.65Ah |
| 1 hour rate (4.56A, 9.6V) | 4.56Ah |
| Internal Resistance | |
| Fully Charged battery 77°F(25°C) | 28mOhms |
| 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) | 105A(5s) |
| Short Circuit Current | 350A |
| Charge Methods: Constant Voltage Charge 77°F(25°C) | |
| Cycle use | 14.5-14.9V |
| Maximum charging current | 2.8A |
| 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 | 29.1 | 18.4 | 14.8 | 8.30 | 4.56 | 1.84 | 1.26 | 0.70 | 0.363 |
| 1.65V | 27.5 | 17.5 | 14.2 | 7.90 | 4.40 | 1.80 | 1.22 | 0.69 | 0.359 |
| 1.70V | 26.0 | 16.7 | 13.6 | 7.62 | 4.22 | 1.74 | 1.17 | 0.69 | 0.355 |
| 1.75V | 24.4 | 15.7 | 13.0 | 7.24 | 4.04 | 1.68 | 1.13 | 0.68 | 0.350 |
| 1.80V | 22.8 | 14.8 | 12.4 | 7.03 | 3.84 | 1.63 | 1.08 | 0.66 | 0.344 |

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

| End Point Volts/Cell | 5min | 10min | 15min | 30min | 45min | 1h | 2h | 3h | 5h |
|----------------------|------|-------|-------|-------|-------|------|------|------|------|
| 1.60V | 52.0 | 35.1 | 27.5 | 15.2 | 11.50 | 8.97 | 5.06 | 3.59 | 2.33 |
| 1.65V | 49.4 | 33.3 | 26.5 | 14.6 | 11.00 | 8.59 | 4.94 | 3.50 | 2.29 |
| 1.70V | 46.9 | 31.6 | 25.4 | 14.0 | 10.50 | 8.23 | 4.80 | 3.40 | 2.25 |
| 1.75V | 44.5 | 29.8 | 24.3 | 13.4 | 10.10 | 7.99 | 4.65 | 3.30 | 2.21 |
| 1.80V | 41.6 | 28.0 | 23.3 | 12.9 | 9.75 | 7.62 | 4.50 | 3.19 | 2.15 |

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

