## GB5-12(12V5Ah/2ohr)

The rechargeable batteries are lead-lead dioxide systems. The dilute sulfuric acid electrolyte is absorbed by separators and thus immobilized. Should the battery be accidentally overcharged producing bydrogen 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 Feature

- 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.


## SPECIFICATION

| Nominal voltage | $\cdots \cdots \cdots \cdots \cdots \cdots$ | 12 V |
| :--- | :--- | :--- | :--- |
| Number of cell | $\cdots \cdots \cdots \cdots \cdots \cdots$ | 6 |
| Length $(\mathrm{mm} / \mathrm{inch})$ | $\cdots \cdots \cdots \cdots \cdots \cdots \cdots$ | $90 / 3.54$ |
| Width $(\mathrm{mm} / \mathrm{inch}$ | $\cdots \cdots \cdots \cdots \cdots \cdots$ | $70 / 2.76$ |
| Height(mm/inch) | $\cdots \cdots \cdots \cdots \cdots \cdots$ | $101 / 3.98$ |
| Total Height(mm/inch) | $\cdots \cdots \cdots \cdots$ | $107 / 4.21$ |
| Approx. Weight(kg/lbs) | $\cdots \cdots \cdots \cdots$ | $1.62 / 3.57$ |



Terminal F1

Performance Characteristics

| Capacity <br> $77^{\circ} \mathrm{F}\left(25^{\circ} \mathrm{C}\right)$ | 20 hour rate $(0.25 \mathrm{~A}, ~ 10.5 \mathrm{~V})$ | 5.0 Ah |
| :---: | :---: | :---: |
|  | 10 hour rate $(0.47 \mathrm{~A}, 10.5 \mathrm{~V})$ | 4.7 Ah |
|  | 5 hour rate $(0.86 \mathrm{~A}, 10.5 \mathrm{~V})$ | 4.3 Ah |
|  | 1 hour rate $(3.2 \mathrm{~A}, 9.6 \mathrm{~V})$ | 3.2 Ah |
| Internal <br> Resistance | Full charged Battery $77^{\circ} \mathrm{F}\left(25^{\circ} \mathrm{C}\right): 25 \mathrm{~m} \Omega$ |  |
|  |  |  |
| affected by |  |  |
| Temperature <br> $(20$ hour rate $)$ | $104^{\circ} \mathrm{F}\left(40^{\circ} \mathrm{C}\right)$ | $102 \%$ |
|  | $77^{\circ} \mathrm{F}\left(25^{\circ} \mathrm{C}\right)$ | $100 \%$ |
| Self-Discharge <br> $68^{\circ} \mathrm{F}\left(20^{\circ} \mathrm{C}\right)$ | $32^{\circ} \mathrm{F}\left(10^{\circ} \mathrm{C}\right)$ | $85 \%$ |
|  | Capacity after 3 month storage | $90 \%$ |
|  | Capacity after 6 month storage | $80 \%$ |

Max. discharge current $77^{\circ} \mathrm{F}\left(25^{\circ} \mathrm{C}\right): \quad 75 \mathrm{~A}(5 \mathrm{~S})$

| Charge | Float: $13.6 \sim 13.8 \mathrm{~V} / 77^{\circ} \mathrm{F} /\left(25^{\circ} \mathrm{C}\right)$ |
| :---: | :---: |
| (Constant | Cycle: $14.5 \sim 14.9 \mathrm{~V} / 77^{\circ} \mathrm{F} /\left(25^{\circ} \mathrm{C}\right)$ |
| Voltage) | Max. Current: 1.25 A |

Discharge Constant Current (Amperes at $77^{\circ} \mathrm{F} 25^{\circ} \mathrm{C}$ )

| End Point <br> Volts/Cell | 5 min | 10 min | 15 min | 30 min | 1 h | 3 h | 5 h | 10 h | 20 h |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1.60 V | 16.8 | 13.5 | 10.0 | 5.22 | 3.20 | 1.43 | 0.91 | 0.50 | 0.27 |
| 1.65 V | 15.9 | 12.9 | 9.55 | 5.01 | 3.08 | 1.40 | 0.90 | 0.49 | 0.26 |
| 1.70 V | 15.0 | 12.2 | 9.10 | 4.79 | 2.96 | 1.35 | 0.88 | 0.48 | 0.25 |
| 1.75 V | 14.0 | 11.5 | 8.60 | 4.56 | 2.83 | 1.30 | 0.86 | 0.47 | 0.25 |
| 1.80 V | 13.0 | 10.8 | 8.10 | 4.31 | 2.70 | 1.24 | 0.82 | 0.45 | 0.24 |

Discharge Constant Power (watts at $77^{\circ} \mathrm{F} 25^{\circ} \mathrm{C}$ )

| End Point <br> Volts/Cell | 5 min | 10 min | 15 min | 30 min | 45 min | 1 h | 2 h | 3 h | 5 h |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1.60 V | 33.3 | 23.2 | 18.2 | 10.4 | 7.74 | 6.40 | 3.65 | 2.63 | 1.77 |
| 1.65 V | 31.3 | 21.9 | 17.2 | 9.90 | 7.38 | 6.13 | 3.54 | 2.57 | 1.73 |
| 1.70 V | 29.2 | 20.5 | 16.2 | 9.36 | 7.01 | 5.85 | 3.42 | 2.50 | 1.70 |
| 1.75 V | 27.2 | 19.2 | 15.2 | 8.82 | 6.63 | 5.56 | 3.29 | 2.42 | 1.66 |
| 1.80 V | 25.2 | 17.8 | 14.2 | 8.27 | 6.25 | 5.26 | 3.15 | 2.34 | 1.62 |

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




$\int_{\text {BATERT.GD }}^{\text {ECURTY }}$

```
Discharge characteristic (25 ' C)
```






Page 2 of 2

