

## Valve Regulated Lead Acid Battery

Maintenance-Free Sealed Lead Acid Battery.

Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99%.

## Design for Cyclic Applications

### 【Design Life】

450 cycles @ 100%DOD at 25°C

1800 cycles @ 30%DOD at 25°C

### 【Operating Temperature Range】

Nominal Operating Temperature : 25°C (77°F)

Discharge : -15°C ~ 50°C (5°F~122°F)

Charge: -15°C ~ 40°C (5°F~104°F)

Storage: -15°C ~ 40°C (5°F~104°F)

### 【Equalization Charging Voltage】

14.4 ~ 15.0 VDC/Unit at 25°C (77°F)

### 【Self Discharge】

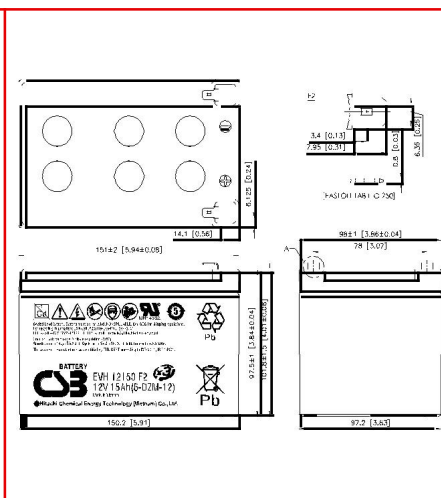
Less than 10% after 90 days, can be stored up to 6 months at 25°C (77°F);

Fully recharging is required before usage, and charged sooner if stored at higher temperature than 25°C (77°F).



## Specification

|                           |                                                                 |                             |
|---------------------------|-----------------------------------------------------------------|-----------------------------|
| Nominal Voltage           | 12V (6 cells per unit)                                          |                             |
| Nominal Capacity          | 15 Ah @20hr-rate to 1.75V per cell @25°C (77°F)                 |                             |
| Weight                    | Approx. 4.60 Kg (10.14 lbs)                                     |                             |
| Maximum Discharge Current | 180 A (5sec)                                                    |                             |
| Internal Resistance       | Approx. 10.5 mΩ                                                 |                             |
| Short Circuit Current     | --                                                              |                             |
| Maximum Charge Current    | 4.50 A                                                          |                             |
| Terminal hardware Torque  | --                                                              |                             |
| Container Material        | ABS (UL 94-HB) & Flame Retardant (94-V0) available upon request |                             |
| Dimensions                | Length (L)                                                      | 151.0±2.0 mm 5.94±0.08 inch |
|                           | Width (W)                                                       | 98.0±1.0 mm 3.86±0.04 inch  |
|                           | Container Height (h)                                            | 97.5±1.0 mm 3.84±0.04 inch  |
|                           | Overall Height (H)                                              | 101.8±1.5 mm 4.01±0.06 inch |



### Constant Current Discharge Characteristics Unit: A (25°C, 77°F)

| F.V/Time | 30MIN | 45MIN | 60MIN | 90MIN | 2HR  | 3HR  | 4HR  | 5HR  | 6HR  | 8HR  | 10HR | 20HR |
|----------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|
| 1.60V    | 20.0  | 14.4  | 11.2  | 7.85  | 6.18 | 4.33 | 3.35 | 2.74 | 2.17 | 1.79 | 1.43 | 0.79 |
| 1.67V    | 19.9  | 14.1  | 11.0  | 7.79  | 6.11 | 4.25 | 3.31 | 2.73 | 2.16 | 1.78 | 1.42 | 0.78 |
| 1.70V    | 19.8  | 13.9  | 10.9  | 7.73  | 6.03 | 4.23 | 3.30 | 2.72 | 2.15 | 1.77 | 1.41 | 0.77 |
| 1.75V    | 19.5  | 13.8  | 10.8  | 7.66  | 6.00 | 4.17 | 3.27 | 2.71 | 2.14 | 1.76 | 1.39 | 0.76 |
| 1.80V    | 19.0  | 13.8  | 10.7  | 7.50  | 5.83 | 4.08 | 3.19 | 2.64 | 2.10 | 1.74 | 1.38 | 0.75 |
| 1.85V    | 18.2  | 13.3  | 10.4  | 7.38  | 5.72 | 3.94 | 3.09 | 2.56 | 2.03 | 1.68 | 1.33 | 0.72 |

### Constant Power Discharge Characteristics Unit: W (25°C, 77°F)

| F.V/Time | 30MIN | 45MIN | 60MIN | 90MIN | 2HR  | 3HR  | 4HR  | 5HR  | 6HR  | 8HR  | 10HR | 20HR |
|----------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|
| 1.60V    | 221   | 165   | 129   | 91.4  | 71.0 | 49.6 | 38.9 | 31.9 | 25.3 | 21.0 | 17.1 | 8.98 |
| 1.67V    | 220   | 163   | 128   | 90.8  | 70.5 | 49.2 | 38.6 | 31.7 | 25.2 | 20.9 | 17.0 | 8.96 |
| 1.70V    | 218   | 162   | 127   | 89.9  | 70.0 | 49.0 | 38.4 | 31.5 | 25.1 | 20.8 | 16.9 | 8.92 |
| 1.75V    | 215   | 159   | 125   | 88.7  | 69.4 | 48.8 | 38.1 | 31.1 | 24.9 | 20.7 | 16.8 | 8.82 |
| 1.80V    | 211   | 157   | 123   | 87.3  | 68.6 | 47.9 | 37.5 | 30.7 | 24.6 | 20.5 | 16.7 | 8.74 |
| 1.85V    | 206   | 155   | 121   | 85.3  | 66.6 | 46.7 | 36.3 | 29.6 | 23.8 | 19.9 | 16.4 | 8.52 |

Please refer to the official site for the latest rating confirmation. URL: [www.csb-battery.com](http://www.csb-battery.com)

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Recognized under UL 1989,  
and certified by ISO 9001, 14001.

