



## 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 Standby Power Applications

### 【Design Life】

Up to 5 Years in Standby Service at 25°C

Eurobat (20°C) : 3-5 years, Standard Commercial

### 【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)

### 【Float Charging Voltage】

13.5 ~ 13.8 VDC/Unit at 25°C (77°F)

### 【Equalization Charging Voltage】

14.4 ~ 15.0 VDC/Unit at 25°C (77°F)

### 【Self Discharge】

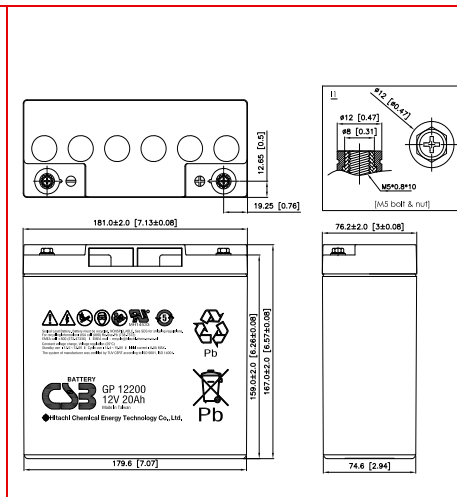
Less than 10% after 90 days, can be stored up to 6 months at 25°C (77°F);

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

## Specification

Design according with IEC 61056-1/2: 2012

|                           |                                                                 |                             |
|---------------------------|-----------------------------------------------------------------|-----------------------------|
| Nominal Voltage           | 12V (6 cells per unit)                                          |                             |
| Nominal Capacity          | 20 Ah @20hr-rate to 1.75V per cell @25°C (77°F)                 |                             |
| Weight                    | Approx. 6.40 Kg (14.11 lbs)                                     |                             |
| Maximum Discharge Current | 230A (5sec)                                                     |                             |
| Internal Resistance       | Approx. 13.6mΩ                                                  |                             |
| Short Circuit Current     | 614A                                                            |                             |
| Maximum Charge Current    | 6.00A                                                           |                             |
| Terminal types            | I1 thread lead alloy terminal to accept M5 bolt                 |                             |
| Terminal Breaking Torque  | 59 Kgf-cm / 51 Lbf-in / 5.73 N-m                                |                             |
| Container Material        | ABS (UL 94-HB) & Flame Retardant (94-V0) available upon request |                             |
| Dimensions                | Length (L)                                                      | 181.0±2.0 mm 7.13±0.08 inch |
|                           | Width (W)                                                       | 76.2±1.0 mm 3.00±0.04 inch  |
|                           | Container Height (h)                                            | 167.0±2.0 mm 6.57±0.08 inch |
|                           | Overall Height (H)                                              | 167.0±2.0 mm 6.57±0.08 inch |



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

| F.V/Time | 5 MIN | 10MIN | 15MIN | 30MIN | 60MIN | 90MIN | 2HR  | 3HR  | 5HR  | 8HR  | 10HR | 20HR |
|----------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|
| 1.60V    | 87.5  | 55.5  | 42.3  | 25.5  | 15.1  | 11.0  | 8.75 | 6.23 | 3.97 | 2.62 | 2.10 | 1.09 |
| 1.67V    | 77.7  | 51.8  | 39.7  | 24.9  | 15.0  | 10.9  | 8.69 | 6.22 | 3.94 | 2.60 | 2.07 | 1.04 |
| 1.70V    | 73.5  | 50.2  | 38.7  | 24.7  | 14.9  | 10.9  | 8.67 | 6.20 | 3.93 | 2.60 | 2.05 | 1.03 |
| 1.75V    | 66.4  | 47.0  | 37.1  | 24.2  | 14.8  | 10.7  | 8.54 | 6.17 | 3.92 | 2.59 | 2.03 | 1.00 |
| 1.80V    | 59.3  | 43.8  | 35.2  | 23.8  | 14.5  | 10.6  | 8.42 | 6.12 | 3.91 | 2.58 | 2.00 | 0.96 |
| 1.85V    | 52.2  | 40.5  | 33.7  | 23.2  | 14.3  | 10.4  | 8.29 | 6.07 | 3.90 | 2.57 | 1.96 | 0.92 |

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

| F.V/Time | 5MIN | 10MIN | 15MIN | 30MIN | 60MIN | 90MIN | 2HR | 3HR  | 5HR  | 8HR  | 10HR | 20HR |
|----------|------|-------|-------|-------|-------|-------|-----|------|------|------|------|------|
| 1.60V    | 1050 | 666   | 507   | 306   | 181   | 132   | 105 | 74.7 | 47.6 | 31.4 | 25.2 | 13.1 |
| 1.67V    | 932  | 621   | 481   | 301   | 179   | 130   | 104 | 74.6 | 47.3 | 31.3 | 24.9 | 12.5 |
| 1.70V    | 882  | 602   | 466   | 299   | 178   | 129   | 103 | 74.3 | 47.2 | 31.2 | 24.8 | 12.3 |
| 1.75V    | 797  | 564   | 446   | 292   | 176   | 128   | 102 | 74.0 | 47.1 | 31.1 | 24.4 | 11.9 |
| 1.80V    | 712  | 525   | 421   | 285   | 174   | 126   | 101 | 73.4 | 46.9 | 31.0 | 24.0 | 11.5 |
| 1.85V    | 627  | 487   | 404   | 278   | 171   | 125   | 100 | 72.8 | 46.8 | 30.9 | 23.6 | 11.1 |

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.

