



## GP series GP 12400



### Valve Regulated Lead Acid Battery

Maintenance-Free Sealed Lead Acid Battery.

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

#### General

#### 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】

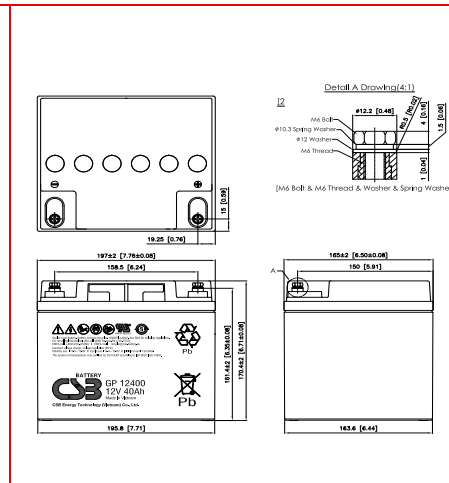
Less than 10% after 90 days, can be stored up to 6 months at 25°C (77°F);

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           | 40 Ah @20hr-rate to 1.75V per cell @25°C (77°F)                 |                             |
| Weight                     | Approx. 12.92 Kg (28.48 lbs)                                    |                             |
| Maximum Discharge Current  | 400A (5sec)                                                     |                             |
| Internal Resistance        | Approx. 8.5mΩ                                                   |                             |
| Short Circuit Current      | 1012A                                                           |                             |
| Maximum Charge Current     | 12.00A                                                          |                             |
| Terminal types             | I2 thread lead alloy terminal to accept M6 bolt                 |                             |
| Terminal tightening torque | 51.7±10.3 Kgf·cm / 44.9±9.0 Lbf·in / 5.10±1.0 N·m               |                             |
| Container Material         | ABS (UL 94-HB) & Flame Retardant (94-V0) available upon request |                             |
| Dimensions                 | Length (L)                                                      | 197.0±2.0 mm 7.76±0.08 inch |
|                            | Width (W)                                                       | 165.0±2.0 mm 6.50±0.08 inch |
|                            | Container Height (h)                                            | 170.4±2.0 mm 6.71±0.08 inch |
|                            | Overall Height (H)                                              | 170.4±2.0 mm 6.71±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    | 172   | 118   | 87.8  | 51.7  | 30.4  | 22.3  | 17.7 | 12.8 | 8.31 | 5.53 | 4.54 | 2.43 |
| 1.67V    | 157   | 112   | 85.7  | 51.1  | 30.2  | 22.2  | 17.6 | 12.7 | 8.27 | 5.50 | 4.52 | 2.42 |
| 1.70V    | 149   | 109   | 84.2  | 50.7  | 30.0  | 22.1  | 17.5 | 12.6 | 8.24 | 5.49 | 4.51 | 2.41 |
| 1.75V    | 134   | 101   | 80.7  | 49.5  | 29.6  | 21.9  | 17.4 | 12.5 | 8.19 | 5.45 | 4.48 | 2.40 |
| 1.80V    | 121   | 91.4  | 75.1  | 47.3  | 28.7  | 21.5  | 17.1 | 12.4 | 8.07 | 5.37 | 4.41 | 2.36 |
| 1.85V    | 103   | 81.4  | 66.2  | 43.8  | 27.2  | 20.6  | 16.4 | 11.9 | 7.79 | 5.19 | 4.26 | 2.28 |

#### 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    | 1703 | 1231  | 955   | 581   | 347   | 257   | 204 | 148 | 98.0 | 65.4 | 53.9 | 29.1 |
| 1.67V    | 1596 | 1185  | 939   | 576   | 345   | 256   | 203 | 147 | 97.5 | 65.2 | 53.7 | 29.0 |
| 1.70V    | 1542 | 1155  | 925   | 572   | 344   | 255   | 202 | 146 | 97.3 | 65.1 | 53.6 | 28.9 |
| 1.75V    | 1450 | 1092  | 886   | 561   | 340   | 254   | 201 | 145 | 96.9 | 64.8 | 53.4 | 28.8 |
| 1.80V    | 1332 | 1013  | 826   | 540   | 332   | 250   | 199 | 144 | 95.9 | 64.1 | 52.8 | 28.5 |
| 1.85V    | 1123 | 926   | 741   | 506.8 | 317   | 241   | 192 | 140 | 93.3 | 62.3 | 51.3 | 27.6 |

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,  
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