



## EVH series

# EVH 12390

### 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 Cyclic Applications

##### 【Design Life】

400 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)

##### 【Certification】

IEC 60254-1:2005 / IEC60254-2:2008

##### 【Equalization Charging Voltage】

14.4 ~ 15.0 VDC/Unit at 25°C (77°F)

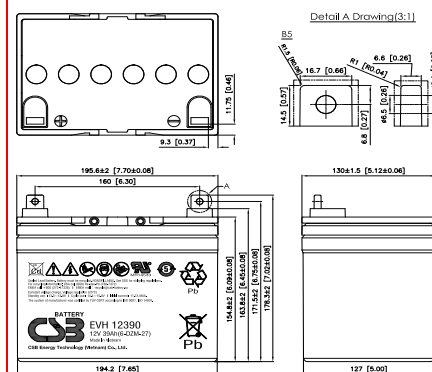
##### 【Self Discharge】

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           | 39 Ah @20hr-rate to 1.75V per cell @25°C (77°F)   |              |                |
| Weight                     | Approx. 11.50 Kg (25.35 lbs)                      |              |                |
| Maximum Discharge Current  | 400 A (5sec)                                      |              |                |
| Internal Resistance        | Approx. 8.9 mΩ                                    |              |                |
| Short Circuit Current      | 987.5 A                                           |              |                |
| Maximum Charge Current     | 11.70 A                                           |              |                |
| Terminal types             | B5 terminal to accept M6 nut & 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)                                    |              |                |
| Dimensions                 | Length (L)                                        | 195.6±2.0 mm | 7.70±0.08 inch |
|                            | Width (W)                                         | 130.0±1.5 mm | 5.12±0.06 inch |
|                            | Container Height (h)                              | 154.8±2.0 mm | 6.09±0.08 inch |
|                            | Overall Height (H)                                | 178.3±2.0 mm | 7.02±0.08 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    | 39.6  | 28.2  | 23.3  | 17.8  | 14.4  | 10.4 | 8.25 | 6.93 | 5.58 | 4.68 | 3.89 | 2.13 |
| 1.67V    | 38.5  | 27.7  | 22.9  | 17.5  | 14.2  | 10.3 | 8.19 | 6.87 | 5.51 | 4.60 | 3.81 | 2.06 |
| 1.70V    | 37.4  | 27.0  | 22.4  | 17.2  | 14.0  | 10.2 | 8.13 | 6.79 | 5.43 | 4.53 | 3.73 | 2.01 |
| 1.75V    | 36.4  | 26.6  | 22.0  | 16.8  | 13.7  | 10.1 | 8.04 | 6.71 | 5.36 | 4.46 | 3.67 | 1.96 |
| 1.80V    | 35.4  | 26.0  | 21.6  | 16.6  | 13.50 | 9.93 | 7.94 | 6.62 | 5.29 | 4.40 | 3.60 | 1.91 |
| 1.85V    | 34.3  | 25.5  | 21.1  | 16.2  | 13.30 | 9.78 | 7.80 | 6.52 | 5.20 | 4.33 | 3.54 | 1.87 |

#### 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    | 475   | 340   | 280   | 213   | 172 | 124 | 99.0 | 83.2 | 67.0 | 56.2 | 46.6 | 25.5 |
| 1.67V    | 463   | 335   | 276   | 210   | 170 | 123 | 98.1 | 82.4 | 66.2 | 55.3 | 45.6 | 24.8 |
| 1.70V    | 451   | 328   | 271   | 207   | 168 | 122 | 97.2 | 81.5 | 65.2 | 54.4 | 44.8 | 24.1 |
| 1.75V    | 438   | 319   | 265   | 204   | 166 | 120 | 96.2 | 80.5 | 64.4 | 53.6 | 44.0 | 23.5 |
| 1.80V    | 425   | 312   | 260   | 201   | 163 | 119 | 95.0 | 79.4 | 63.4 | 52.8 | 43.3 | 22.9 |
| 1.85V    | 412   | 302   | 253   | 197   | 160 | 117 | 93.7 | 78.2 | 62.5 | 52.0 | 42.6 | 22.4 |

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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