



# EVX 12170

## 12V 17.0Ah

EVX 12170 is designed specially for electric vehicles, such as electric golf cart, electric wheelchair, mower, dust collector...etc. It has high cycling life, high efficiency and long service life.



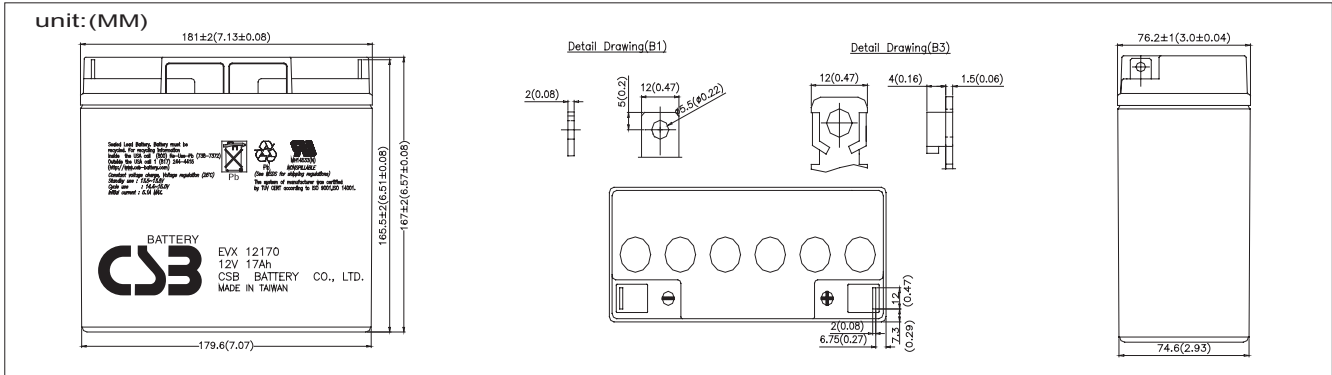
### Specification

|   |   |
|---|---|
| <b>Cells Per Unit</b>                             | 6   |
| <b>Voltage Per Unit</b>                           | 12  |
| <b>Capacity</b>                                   | 17Ah @ 20hr-rate to 1.75V per cell @25 °C (77°F)  |
| <b>Weight</b>                                     | Approx. 6.10kg(13.4 lbs)  |
| <b>Maximum Discharge Current</b>                  | 230A(5sec)  |
| <b>Internal Resistance</b>                        | Approx. 15mΩ  |
| <b>Operating Temperature Range</b>                | Discharge: -20°C~50°C (-4°F~122°F)<br>Charge: 0°C~40°C (32°F~104°F)<br>Storage: -20°C~40°C (-4°F~104°F)   |
| <b>Nominal Operating Temperature Range</b>        | 25°C±3°C (77°F±5°F)   |
| <b>Floatcharging Voltage</b>                      | 13.5 to 13.8 VDC/unit Average at 25°C (77°F)  |
| <b>Recommended Maximum Charging Current Limit</b> | 5.1A  |
| <b>Equalization and Cycle Service</b>             | 14.4 to 15.0 VDC/unit Average at 25°C (77°F)  |
| <b>Self Discharge</b>                             | CSB Batteries can be stored for more than 6 months at 25°C (77°F). Please charge batteries before using. For higher temperatures the time interval will be shorter. |
| <b>Terminal</b>                                   | Bolt & Nut  |
| <b>Container Material</b>                         | -ABS (UL94-HB)*Flammability resistance of UL94-V2 can be available upon request.  |



CSB-manufactured batteries are UL-recognized components under UL924 and UL1989. CSB is also certified by ISO 9001 and ISO 14001.

### Dimensions



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

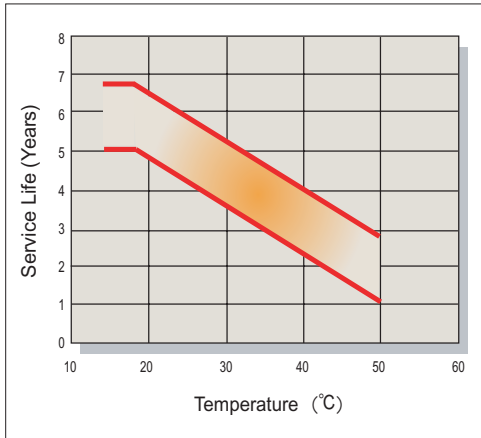
| F.V/Time | 30MIN | 60MIN | 90MIN | 2HR  | 3HR  | 4HR  | 5HR  | 8HR  | 10HR | 20HR  |
|----------|-------|-------|-------|------|------|------|------|------|------|-------|
| 1.60V    | 17.0  | 10.3  | 7.34  | 6.23 | 4.43 | 3.55 | 2.92 | 1.98 | 1.63 | 0.900 |
| 1.67V    | 16.3  | 9.84  | 7.04  | 5.97 | 4.24 | 3.40 | 2.81 | 1.90 | 1.57 | 0.865 |
| 1.70V    | 16.0  | 9.67  | 6.91  | 5.86 | 4.16 | 3.34 | 2.76 | 1.87 | 1.54 | 0.850 |
| 1.75V    | 15.5  | 9.38  | 6.70  | 5.68 | 4.04 | 3.24 | 2.68 | 1.81 | 1.49 | 0.825 |
| 1.80V    | 15.0  | 9.08  | 6.48  | 5.50 | 3.91 | 3.14 | 2.59 | 1.75 | 1.44 | 0.800 |
| 1.85V    | 14.5  | 8.79  | 6.27  | 5.32 | 3.79 | 3.04 | 2.51 | 1.69 | 1.39 | 0.775 |

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

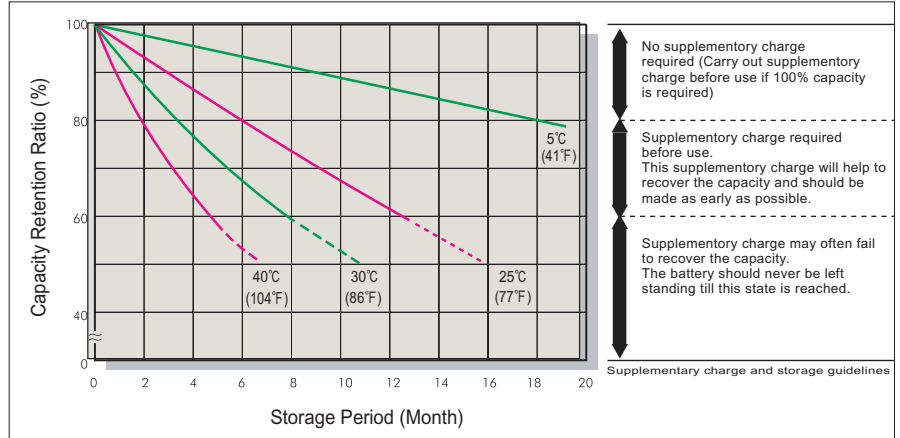
| F.V/Time | 30MIN | 60MIN | 90MIN | 2HR  | 3HR  | 4HR  | 5HR  | 8HR  | 10HR | 20HR  |
|----------|-------|-------|-------|------|------|------|------|------|------|-------|
| 1.60V    | 204   | 123   | 88.1  | 74.8 | 53.1 | 42.6 | 35.0 | 23.8 | 19.6 | 10.80 |
| 1.67V    | 196   | 118   | 84.5  | 71.7 | 50.9 | 40.9 | 33.7 | 22.8 | 18.8 | 10.38 |
| 1.70V    | 192   | 116   | 82.9  | 70.3 | 49.9 | 40.1 | 33.1 | 22.4 | 18.5 | 10.20 |
| 1.75V    | 186   | 113   | 80.4  | 68.2 | 48.4 | 38.9 | 32.1 | 21.7 | 17.9 | 9.90  |
| 1.80V    | 180   | 109   | 77.8  | 66.0 | 46.9 | 37.7 | 31.1 | 21.0 | 17.3 | 9.59  |
| 1.85V    | 174   | 106   | 75.3  | 63.9 | 45.4 | 36.5 | 30.1 | 20.3 | 16.7 | 9.29  |

• All mentioned values are average values.

### Trickle (or Float) Service Life



### Capacity Retention Characteristic

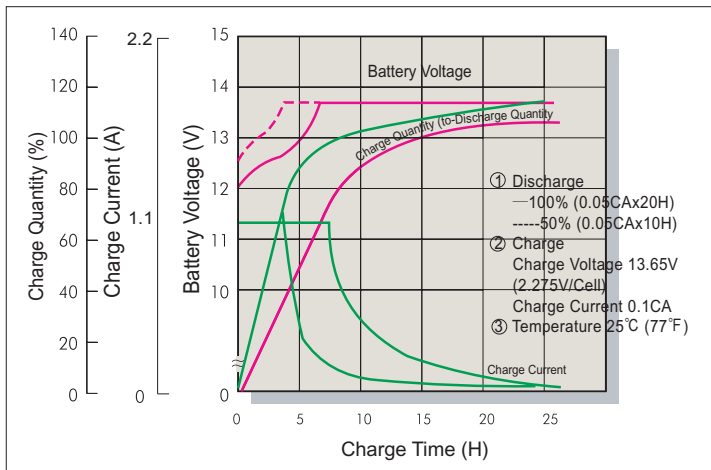


No supplementary charge required (Carry out supplementary charge before use if 100% capacity is required)

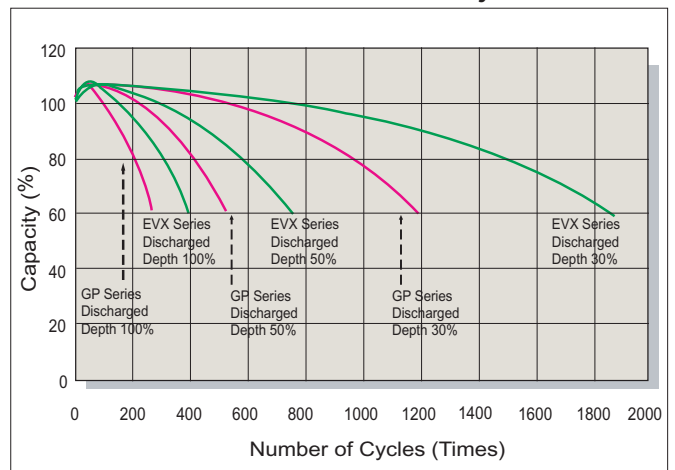
Supplementary charge required before use. This supplementary charge will help to recover the capacity and should be made as early as possible.

Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this state is reached.

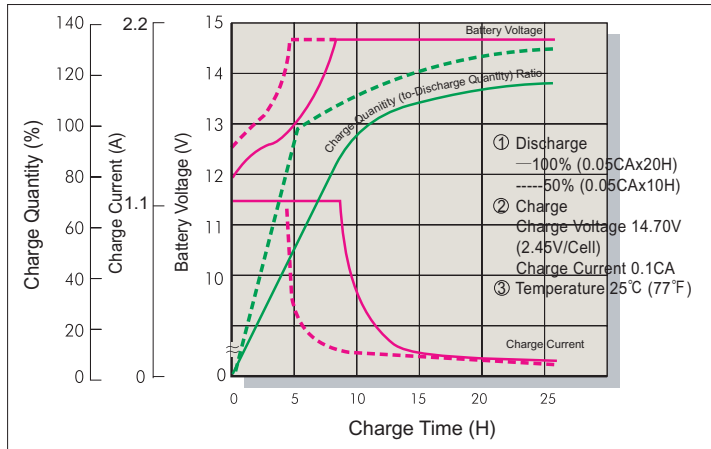
### Battery Voltage and Charge Time for Standby Use



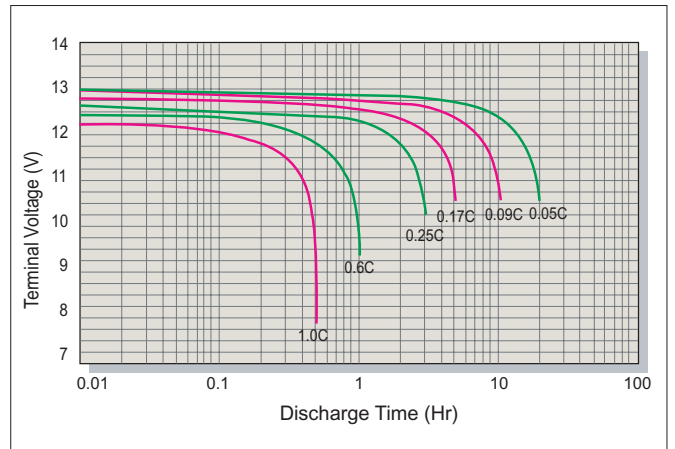
### GP & EVX Series Cycle Service Life



### Battery Voltage and Charge Time for Cycle Use



### Terminal Voltage (V) and Discharge Time (25°C/77°F)



### Charging Procedures

| Application | Charge Voltage (V/Cell) |           |                 | Max. Charge Current |
|-------------|-------------------------|-----------|-----------------|---------------------|
|             | Temperature             | Set Point | Allowable Range |                     |
| Cycle Use   | 25°C (77°F)             | 2.45      | 2.40~2.50       | 0.3C                |
| Standby     | 25°C (77°F)             | 2.275     | 2.25~2.30       |                     |

### Discharge Current VS. Discharge Voltage

|                                |          |               |               |          |
|--------------------------------|----------|---------------|---------------|----------|
| Final Discharge Voltage V/Cell | 1.75     | 1.70          | 1.55          | 1.30     |
| Discharge Current (A)          | 0.2C>(A) | 0.2C<(A)<0.5C | 0.5C<(A)<1.0C | (A)>1.0C |