

## CP12170E-X 12V 17Ah(20hr)

The rechargeable batteries are lead-lead dioxide systems. The dilute sulfuric acid electrolyte is absorbed by separators and plates and thus immobilized. Should the battery be accidentally overcharged producing hydrogen and oxygen, special one-way valves allow the gases to escape thus avoiding excessive pressure build-up. Otherwise, the battery is completely sealed and is, therefore, maintenance-free, leak proof and usable in any position.



### Battery Construction

| Component    | Positive plate | Negative plate | Container | Cover | Safety valve | Terminal | Separator  | Electrolyte   |
|--------------|----------------|----------------|-----------|-------|--------------|----------|------------|---------------|
| Raw material | Lead dioxide   | Lead           | ABS       | ABS   | Rubber       | Copper   | Fiberglass | Sulfuric acid |

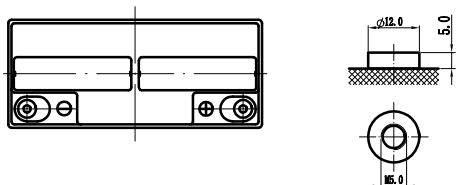
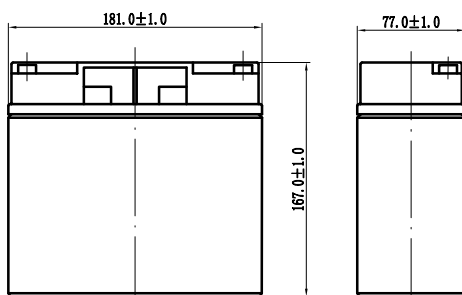
### General Features

- Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99% and freedom from electrolyte maintenance or water adding.
- Not restricted for air transport-complies with IATA/ICAO Special Provision A67.
- UL-recognized component.
- Can be mounted in any orientation.
- Computer designed lead, calcium tin alloy grid for high power density.
- Long service life, float or cyclic applications.
- Maintenance-free operation.
- Low self discharge.

### Dimensions and Weight

|                          |            |
|--------------------------|------------|
| Length(mm / inch)        | 181 / 7.13 |
| Width(mm / inch)         | 77 / 3.03  |
| Height(mm / inch)        | 167 / 6.57 |
| Total Height(mm / inch)  | 167 / 6.57 |
| Approx. Weight(Kg / lbs) | 5.3 / 11.7 |

\* Weight deviation:  $\pm 5\%$



### Performance Characteristics

|  |                         |
|--|-------------------------|
| Nominal Voltage                                    | 12V                     |
| Number of cell                                     | 6                       |
| Design Life  | 5 years                 |
| Nominal Capacity 77°F(25°C)                        |                         |
| 20 hour rate (0.85A, 10.5V)                        | 17Ah                    |
| 10 hour rate (1.68A, 10.5V)                        | 16.8Ah                  |
| 5 hour rate (3.09A, 10.5V)                         | 15.45Ah                 |
| 1 hour rate (11.8A, 9.6V)                          | 11.8Ah                  |
| Internal Resistance                                |                         |
| Fully Charged battery 77°F(25°C)                   | $\leq 16.5\text{mOhms}$ |
| Self-Discharge                                     |                         |
| 3% of capacity declined per month at 20°C(average) |                         |
| Operating Temperature Range                        |                         |
| Discharge  | -20~60°C                |
| Charge   | -10~60°C                |
| Storage  | -20~60°C                |
| Max. Discharge Current 77°F(25°C)                  | 255A(5s)                |
| Short Circuit Current                              | 850A                    |
| Charge Methods: Constant Voltage Charge 77°F(25°C) |                         |
| Cycle use  | 2.40-2.45VPC            |
| Maximum charging current                           | 6.8A                    |
| Temperature compensation                           | -30mV/°C                |
| Standby use  | 2.23-2.30VPC            |
| Temperature compensation                           | -20mV/°C                |

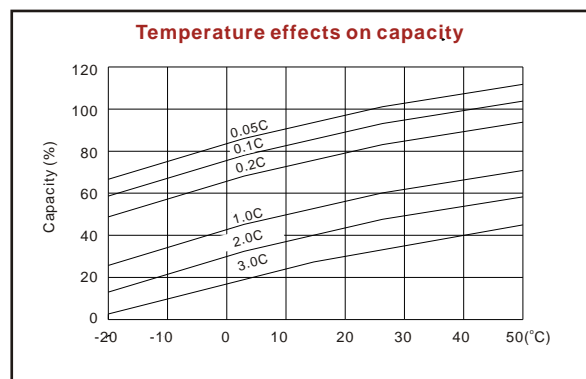
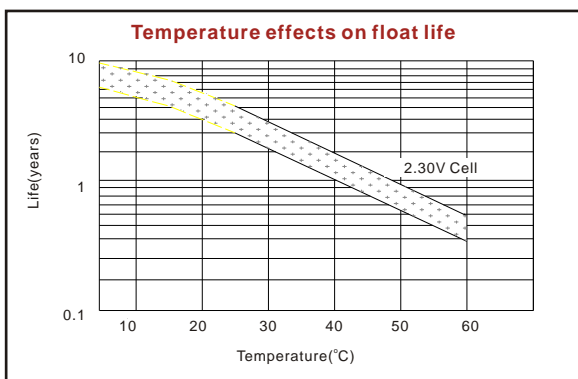
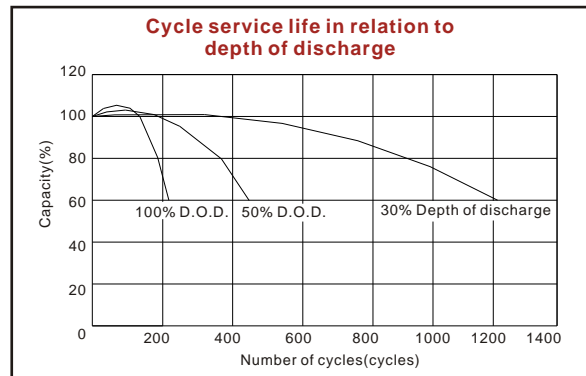
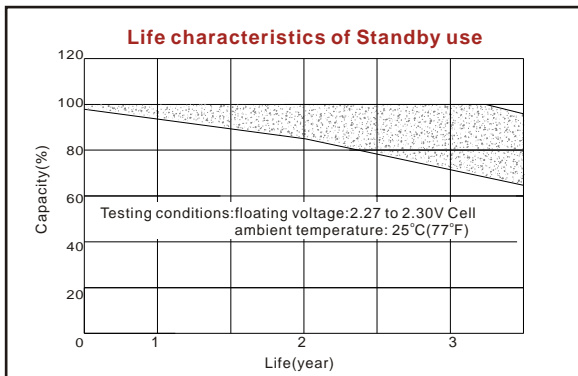
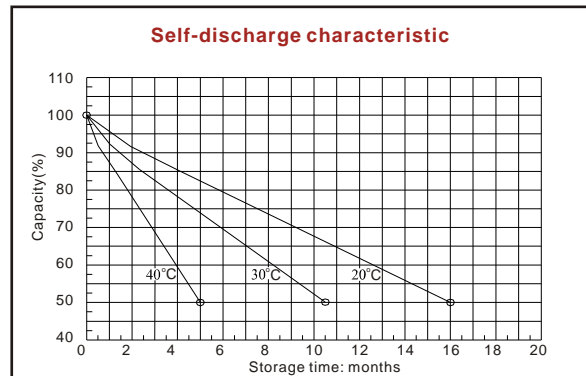
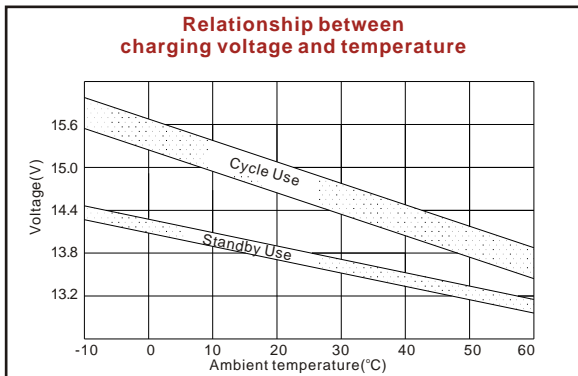
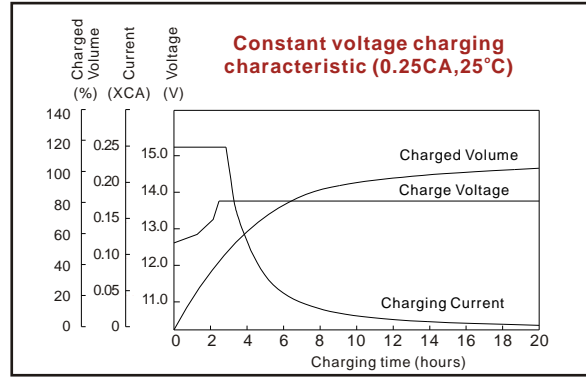
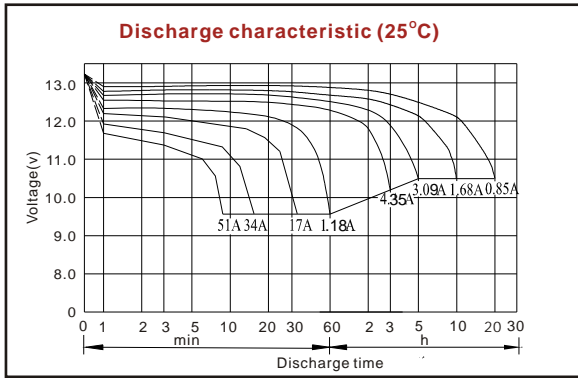
### Discharge Constant Current (Amperes at 77°F25°C)

| End Point Volts/Cell | 5min | 10min | 15min | 30min | 1h   | 3h   | 5h   | 10h  | 20h  |
|----------------------|------|-------|-------|-------|------|------|------|------|------|
| 1.60V                | 64.9 | 44.1  | 34    | 19.8  | 11.8 | 4.57 | 3.09 | 1.78 | 0.89 |
| 1.65V                | 62.8 | 43    | 33.3  | 19.4  | 11.6 | 4.5  | 3.03 | 1.75 | 0.88 |
| 1.70V                | 60.5 | 41.9  | 32.6  | 18.9  | 11.4 | 4.42 | 2.97 | 1.72 | 0.87 |
| 1.75V                | 58   | 40.7  | 31.8  | 18.4  | 11.2 | 4.35 | 2.91 | 1.68 | 0.85 |
| 1.80V                | 55.3 | 39.4  | 30.9  | 17.9  | 10.9 | 4.27 | 2.84 | 1.65 | 0.84 |

### Discharge Constant Power (Watts at 77°F25°C)

| End Point Volts/Cell | 5min | 10min | 15min | 30min | 45min | 1h   | 2h   | 3h   | 5h   |
|----------------------|------|-------|-------|-------|-------|------|------|------|------|
| 1.60V                | 111  | 78.6  | 61.3  | 35.3  | 27.4  | 22.4 | 13.0 | 9.09 | 6.13 |
| 1.65V                | 107  | 77.2  | 60.2  | 34.8  | 27.1  | 22.2 | 12.9 | 9.01 | 6.07 |
| 1.70V                | 103  | 75.8  | 59.0  | 34.3  | 26.8  | 22.0 | 12.8 | 8.92 | 6.01 |
| 1.75V                | 98.0 | 74.3  | 57.8  | 33.7  | 26.4  | 21.7 | 12.7 | 8.83 | 5.95 |
| 1.80V                | 94.0 | 72.8  | 56.5  | 33.1  | 26.0  | 21.5 | 12.5 | 8.74 | 5.88 |

(Note)The above characteristics data are average values obtained within three charge/discharge cycles not the minimum values.  
All data shall be changed without notice, Vision reserves the right to explain and update the information contained hereinto.



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MH25860

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