

# CP6120 6V 12Ah(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

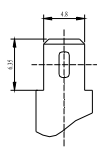
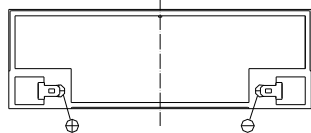
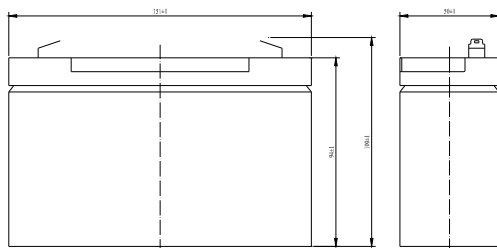
|              |                |                |           |       |              |          |            |               |
|--------------|----------------|----------------|-----------|-------|--------------|----------|------------|---------------|
| Component    | Positive plate | Negative plate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

## General Features

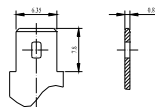
- Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99% and freedom from electrolyte maintenance or water adding.
- Not restricted for air transport-complies with IATA/ICAO Special Provision A67.
- UL-recognized component.
- Can be mounted in any orientation.
- Computer designed 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)        | 151 / 5.94 |
| Width(mm / inch)         | 50 / 1.97  |
| Height(mm / inch)        | 94 / 3.70  |
| Total Height(mm / inch)  | 100 / 3.94 |
| Approx. Weight(Kg / lbs) | 2.0 / 4.41 |



terminal F1



terminal F2(optional)

## Performance Characteristics

|  |            |
|--|------------|
| Nominal Voltage                                    | 6V         |
| Number of cell                                     | 3          |
| Design Life  | 3-5 years  |
| Nominal Capacity 77°F(25°C)                        |            |
| 20 hour rate (0.6A, 5.25V)                         | 12Ah       |
| 10 hour rate (1.15A, 5.25V)                        | 11.5Ah     |
| 5 hour rate (2.02A, 5.25V)                         | 10.1Ah     |
| 1 hour rate (7.8A, 4.8V)                           | 7.8Ah      |
| Internal Resistance                                |            |
| Fully Charged battery 77°F(25°C)                   | 10mOhms    |
| 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)                  | 180A(5s)   |
| Short Circuit Current                              | 600A       |
| Charge Methods: Constant Voltage Charge 77°F(25°C) |            |
| Cycle use  | 7.25-7.45V |
| Maximum charging current                           | 4.8A       |
| Temperature compensation                           | -15mV/°C   |
| Standby use  | 6.8-6.9V   |
| Temperature compensation                           | -10mV/°C   |

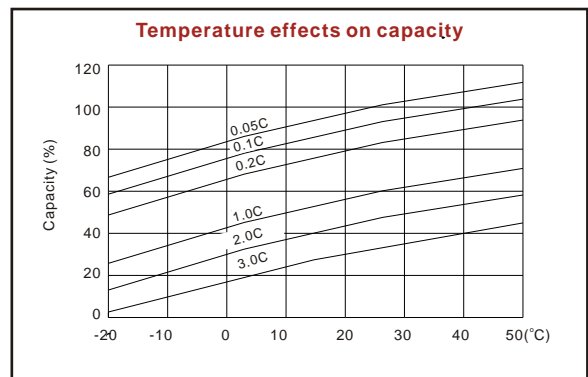
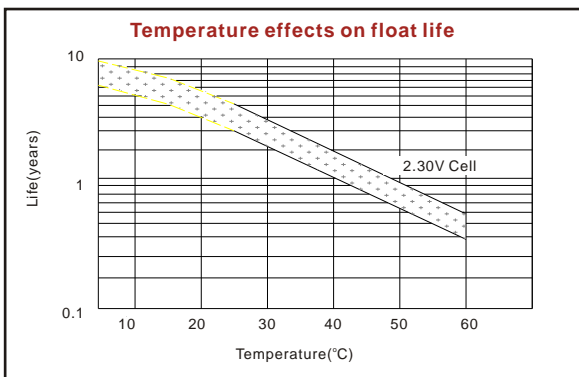
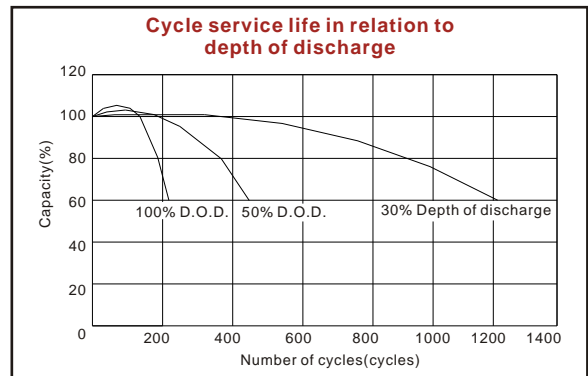
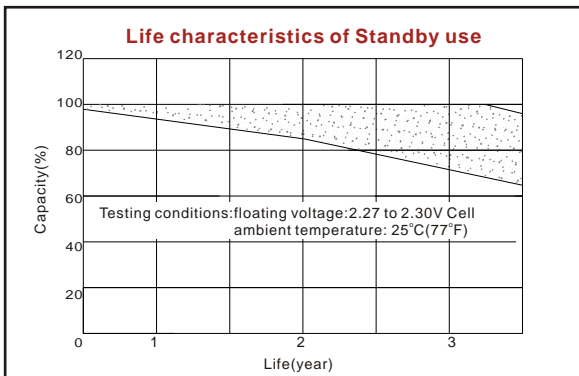
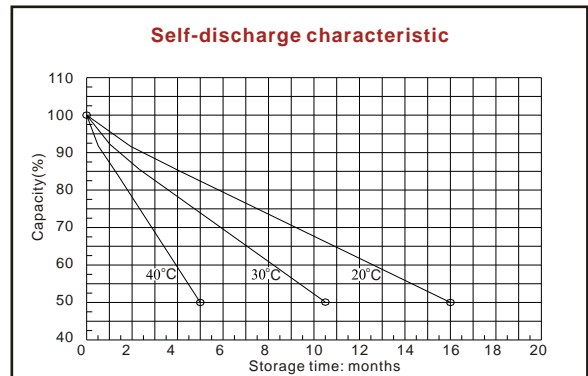
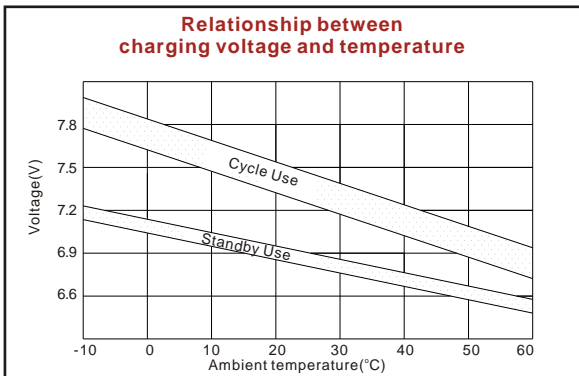
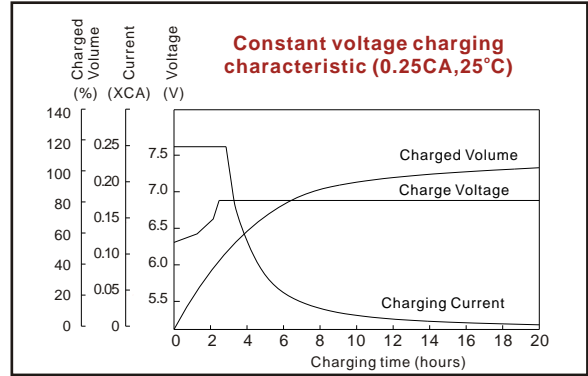
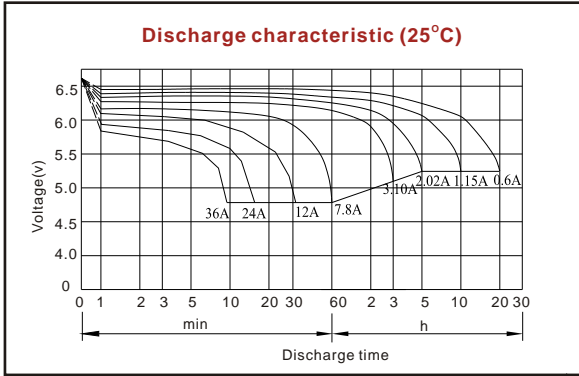
## Discharge Constant Current (Amperes at 77°F25°C)

| End Point Volts/Cell | 5min | 10min | 15min | 30min | 1h   | 3h   | 5h   | 10h  | 20h  |
|----------------------|------|-------|-------|-------|------|------|------|------|------|
| 1.60V                | 50.0 | 34.0  | 25.0  | 13.5  | 7.80 | 3.31 | 2.19 | 1.20 | 0.64 |
| 1.65V                | 47.4 | 32.4  | 23.9  | 13.0  | 7.52 | 3.21 | 2.14 | 1.20 | 0.64 |
| 1.70V                | 44.7 | 30.7  | 22.8  | 12.4  | 7.22 | 3.10 | 2.08 | 1.18 | 0.62 |
| 1.75V                | 41.9 | 29.0  | 21.6  | 11.8  | 6.90 | 2.98 | 2.02 | 1.15 | 0.60 |
| 1.80V                | 39.1 | 27.2  | 20.4  | 11.2  | 6.57 | 2.85 | 1.95 | 1.12 | 0.58 |

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

| End Point Volts/Cell | 5min | 10min | 15min | 30min | 45min | 1h   | 2h   | 3h   | 5h   |
|----------------------|------|-------|-------|-------|-------|------|------|------|------|
| 1.60V                | 88.0 | 59.2  | 47.7  | 26.8  | 21    | 15.6 | 9.78 | 6.60 | 4.37 |
| 1.65V                | 82.5 | 55.7  | 45.1  | 25.9  | 20    | 15.1 | 9.49 | 6.42 | 4.26 |
| 1.70V                | 77.1 | 52.3  | 42.5  | 24.5  | 19    | 14.4 | 9.17 | 6.22 | 4.10 |
| 1.75V                | 71.7 | 48.8  | 39.8  | 23.1  | 18    | 13.8 | 8.81 | 6.00 | 3.96 |
| 1.80V                | 66.4 | 45.4  | 37.2  | 21.9  | 17    | 13.4 | 8.43 | 5.76 | 3.82 |

(Note)The above characteristics data are average values obtained within three charge/discharge cycles not the minimum values.



ISO9001:2000

MH25860

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