

CT1.8-12C

12V 1.8Ah Lead Acid Battery

CoolPower
Solutions

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

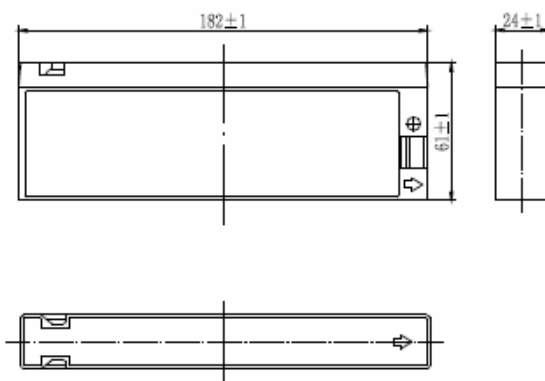
| Component | Positive plate | Negative plate | Container | Cover | Safety valve | Terminal | Separator | Electrolyte |
|--------------|----------------|----------------|-----------|-------|--------------|----------|------------|---------------|
| Raw material | Lead dioxide | Lead | ABS | ABS | Rubber | 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).....182 / 7.17
 Width(mm / inch).....24 / 0.94
 Height(mm / inch)61 / 2.40
 Total Height(mm / inch)61 / 2.40
 Approx. Weight(Kg / lbs).....0.65 / 1.43



Performance Characteristics

Nominal Voltage12V
 Number of cell6
 Design Life3~5 years
 Nominal Capacity 77°F(25°C)
 20 hour rate (0.09A, 10.5V).....1.8Ah
 10 hour rate (0.162A, 10.5V)1.62Ah
 5 hour rate (0.26A, 10.5V).....1.3Ah
 1 hour rate (1.28A, 9.6V)1.28Ah
 Internal Resistance
 Fully Charged battery 77°F(25°C)130mOhms
 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)30A(5s)
 Charge Methods: Constant Voltage Charge 77°F(25°C)
 Cycle use14.5-14.9V
 Maximum charging current0.8A
 Temperature compensation-30mV/°C
 Standby use13.6-13.8V
 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 |
|----------------------|------|-------|-------|-------|------|------|------|-------|------|
| 1.6V | 7.50 | 5.30 | 4.09 | 2.37 | 1.28 | 0.48 | 0.29 | 0.172 | 0.09 |
| 1.65V | 7.10 | 5.00 | 3.88 | 2.26 | 1.23 | 0.47 | 0.28 | 0.170 | 0.09 |
| 1.7V | 6.70 | 4.70 | 3.68 | 2.16 | 1.18 | 0.45 | 0.27 | 0.165 | 0.09 |
| 1.75V | 6.30 | 4.40 | 3.47 | 2.05 | 1.13 | 0.43 | 0.26 | 0.162 | 0.09 |
| 1.8V | 5.90 | 4.10 | 3.27 | 1.95 | 1.08 | 0.41 | 0.25 | 0.160 | 0.08 |

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

| End Point Volts/Cell | 5min | 10min | 15min | 30min | 45min | 1h | 2h | 3h | 5h |
|----------------------|-------|-------|-------|-------|-------|------|------|------|------|
| 1.6V | 13.83 | 9.73 | 7.58 | 4.21 | 3.13 | 2.36 | 1.32 | 0.89 | 0.56 |
| 1.65V | 13.10 | 9.20 | 7.20 | 4.05 | 3.00 | 2.27 | 1.27 | 0.87 | 0.54 |
| 1.7V | 12.38 | 8.68 | 6.83 | 3.90 | 2.88 | 2.19 | 1.22 | 0.84 | 0.52 |
| 1.75V | 11.65 | 8.15 | 6.45 | 3.74 | 2.75 | 2.10 | 1.17 | 0.82 | 0.51 |
| 1.8V | 10.93 | 7.63 | 6.08 | 3.59 | 2.63 | 2.02 | 1.14 | 0.80 | 0.49 |

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

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