VISION GROUP
Shenzhen Center Power Tech.Co.Ltd,.

# EV34-65A-X

## Overview

Vision EV Series Batteries provide superior performance, capacities and reliability.Using state of art dry cell technology the EV series is designed for environmentally sensitive areas that require enhanced cycle life capabilities in commercial, industrial, residential, and private applications. The maintenancefree(VRLA) construction and advanced design features makes the EV Series the definitive choice for a wide variety of markets; Solar and Renewable Energy Storage; Electric Vehicle and Golf cart; Industrial equipment, Floor Machines,Forklifts, Aerial lifts, and Robotics; Marine, RV,and no-idle solutions; Mobility and Medical Equipment; Telecom, Broadband and Cable TV; UPS systems.

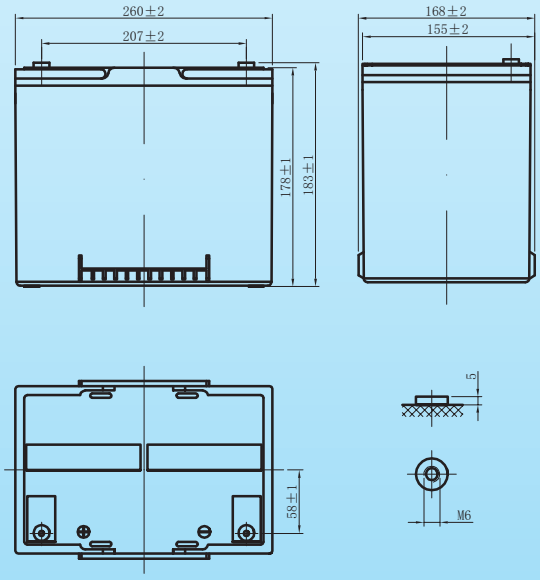
## General Features

- Completely sealed valve regulated construction.
- Computer-aided 99.994% pure heavy-duty lead calcium grid designs.
- Wide range of operating temperatures (-40°C to 60°C).
- Low self discharge rates (Approx. 1%-3% monthly at 20 °C - 25°C / 68°F - 77°F).
- Multi-terminal options.
- Terminal protectors.
- Compatible with sensitive electronic equipment.
- Quality Assurance processes with ISO (4400/992579), QS and TUV Certification EMC tested, CE, ETTS Germany (G4M19906-9202-E-16). UL recognized and approved components (MH25860).
- Tellcordia and Bellcore compliant.

## Dimensions and Weight

| | |
|---|---|
| Length(mm / inch) | 260 / 10.2 |
| Width(mm / inch) | 168 / 6.6 |
| Height(mm / inch) | 178 / 7.0 |
| Total Height(mm / inch) | 183 / 7.2 |
| Approx. Weight(Kg / lbs) | 20.5 / 45.2 |

* Weight deviation: ± 3%




## Battery Specification

| Performance Characteristics | |
|---|---|
| Nominal Voltage | 12V |
| Industry Type No. | 34 |
| Terminal | F11(M6) |
| Ampere Hour Capacity | |
| 100 hour | 75.2Ah |
| 10 hour | 65Ah |
| 5 hour | 57Ah |
| Internal Resistance | |
| Fully Charged at 20℃ | 4.9 mOhms |
| Self-Discharge | |
| <3% of capacity per month at 20℃ | |
| Minutes of Discharge | |
| @25A | 85 min |
| @75A | 22 min |
| R/C @25A | 120 |
| Cranking Amps | |
| 32°F/0℃ | 460 |
| 0°F/-18℃ | 350 |
| Operating Temperature Range | |
| Discharge | -20~60℃ |
| Charge | -10~60℃ |
| Storage | -20~60℃ |
| Short circuit current 20°C | 2500A |
| Charge methods: constant voltage charging at 20°C(68°F) | |
| Standby use | |
| Maximum charging current | 0.3$C_{10}$A |
| Charge voltage | 13.6-13.8V |
| Temperature compensation | -20mV/℃ |
| Cyclic use | |
| Maximum charging current | 0.3$C_{10}$A |
| Charge voltage | 14.4-14.7V |
| Temperature compensation | -30mV/℃ |

## Discharge Constant Current (Amperes at 68°F20°C)

| End Point Volts/Cell | 10min | 15min | 30min | 45min | 1h | 3h | 5h | 10h |
|---|---|---|---|---|---|---|---|---|
| 1.60V | 140 | 113 | 79.0 | 58.1 | 46.7 | 19.6 | 12.2 | 6.82 |
| 1.65V | 132 | 107 | 75.9 | 55.8 | 45.1 | 19.2 | 12.0 | 6.72 |
| 1.70V | 122 | 102 | 72.8 | 53.6 | 43.4 | 18.8 | 11.7 | 6.61 |
| 1.75V | 113 | 95 | 69.6 | 51.3 | 41.7 | 18.3 | 11.4 | 6.50 |
| 1.80V | 104 | 88 | 66.0 | 49.0 | 40.1 | 17.8 | 11.1 | 6.40 |

## Discharge Constant Power (Watts at 68°F20°C)

| End Point Volts/Cell | 10min | 15min | 30min | 45min | 1h | 2h | 3h | 5h |
|---|---|---|---|---|---|---|---|---|
| 1.60V | 250 | 202 | 137 | 101 | 83.7 | 52.0 | 38.0 | 25.1 |
| 1.65V | 240 | 195 | 133 | 98.0 | 81.2 | 50.6 | 37.0 | 24.6 |
| 1.70V | 230 | 188 | 128 | 95.3 | 78.8 | 49.1 | 35.9 | 24.1 |
| 1.75V | 220 | 180 | 123 | 92.6 | 76.4 | 47.7 | 34.9 | 23.6 |
| 1.80V | 209 | 171 | 118 | 89.0 | 73.8 | 46.2 | 33.8 | 23.1 |

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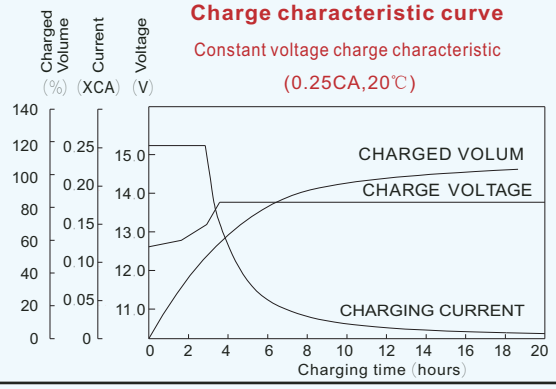
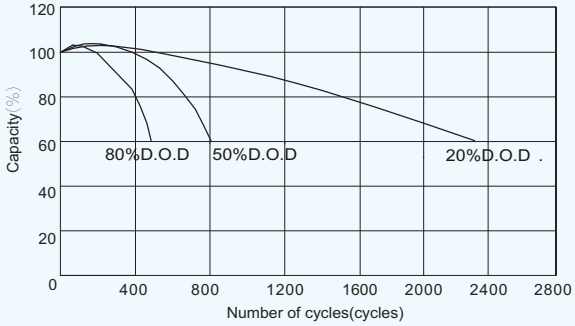
## Charge characteristic curve

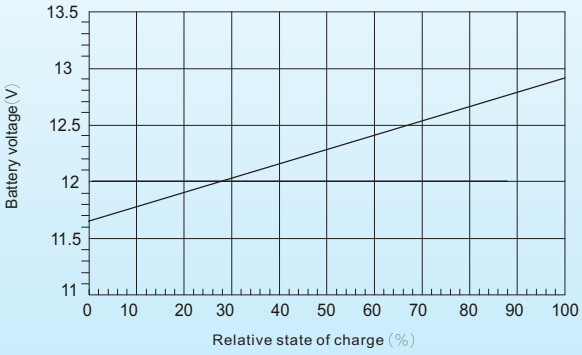
Constant voltage charge characteristic
(0.25CA,20℃)



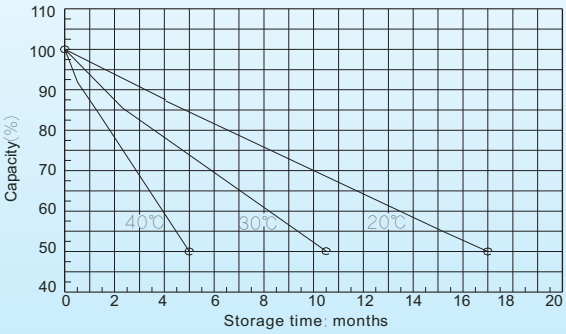

## Cycle service life in relation to depth of discharge



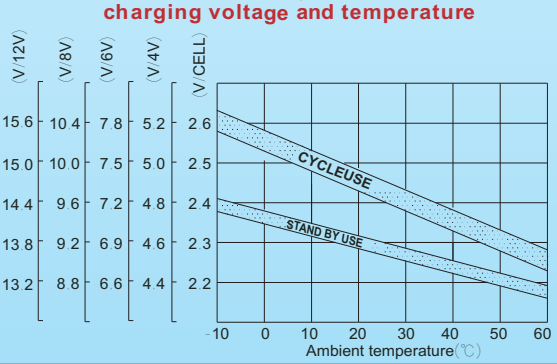

## Relationship of OCV and state of charge(20°C)




## Self-discharge characteristic




## Relationship between charging voltage and temperature




## Temperature effects on capacity