

# EV34-65A-X

### Advanced AGM Dry Cell Technology

Vision EV Series Dry Cell 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 maintenance-free (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, Fork lifts, Aerial lifts, and Robotics; Marine, RV, and no-idle solutions; Mobility and Medical Equipment; Telecom, Broadband and Cable TV; UPS systems.

#### **Features & Benefits**

#### Vision EV Series

- Completely sealed valve regulated construction.
- Flame arresting pressure regulated safety sealing valves for safety, operating pressure management and protection against atmospheric contamination (excess oxygen being absorbed by negative plates).
- Computer-aided 99.994% pure heavy-duty lead calcium grid designs.
- Tank formed plates guarantees evenly formed and capacity matched plates.
- Anchored plate groups to guard against vibration.
- Double insulating Micro porous glass fiber separators.
- Measured and Immobilized electrolyte.
- Vacuum filling and weighing processes.
- Advanced technology for efficient gas recombination of up to 99.9% and freedom from electrolyte maintenance.
- 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).
- High impact reinforced strength copolymer polypropylene cases and flat top designed covers that are rugged and vibration resistant.
- Thermally welded case to cover bonds that eliminate leakage.
- Copper and stainless steel alloy terminals and hardware.
- Multi-terminal options.
- Terminal protectors.
- Removable carry handles.
- Industry leading size and performance options.
- Classified as "NON-SPILLABLE BATTERY" Not restricted for Air (IATA/ICAO) Provision 67, Surface (DOT-CFR-HMR49)or Water (Classified as non-hazardous per IMDG amendment 27) transportation.
- Can be used in multiple orientations (upside down is not recommended).
- 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.

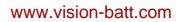






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Complies with DOT provisions listed in 49CRF173.159 (d). Special provision A67



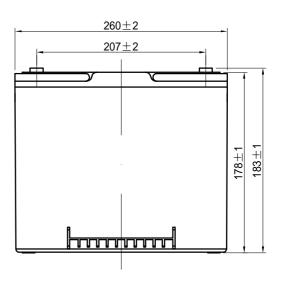
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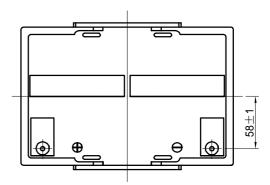


## EV34-65A-X

### **Mechanical Characteristics**

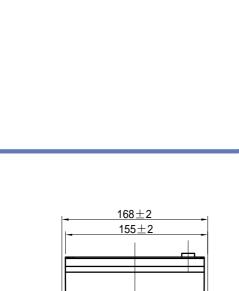
| Industry<br>Type No. | v     | Standard                | Di          | Approx.     |             |              |                        |
|----------------------|-------|-------------------------|-------------|-------------|-------------|--------------|------------------------|
|                      | Volts | (optional)<br>Terminals | L<br>in(mm) | W<br>in(mm) | H<br>in(mm) | TH<br>in(mm) | Weight in<br>Lbs (Kgs) |
|                      |       |                         |             |             |             |              | •                      |
| 34                   | 12    | F11(M6)                 | 10.2 (260)  | 6.6 (168)   | 7.0 (178)   | 7.2 (183)    | 45.2 (20.5)            |











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## **Electrical Specifications**

| Ampere Hour Capacity |  |     | Minutes of Discharge |    |     | Cranking Amps |           |  |
|----------------------|--|-----|----------------------|----|-----|---------------|-----------|--|
| 100HR                | 10HR                                     | 5HR | @25A @75A            |    |     | 32°F/ 0°C     | 0°F∕ -18℃ |  |
|                      | * - Performance averages after 15 cycles |     |                      |    |     |               |           |  |
| 75.2                 | 65                                       | 57  | 85                   | 22 | 120 | 460           | 350       |  |

Constant current discharge ratings-amperes at  $20^{\circ}C(68^{\circ}F)$ 

| End Point<br>Volts/Cell | 10min | 15min | 30min | 45min | 1h   | 3h   | 5h   | 10h  | 100h |
|-------------------------|-------|-------|-------|-------|------|------|------|------|------|
| 1.60V                   | 140   | 113   | 79.0  | 58.1  | 46.7 | 19.6 | 12.2 | 6.82 | 7.91 |
| 1.65V                   | 132   | 107   | 75.9  | 55.8  | 45.1 | 19.2 | 12.0 | 6.72 | 7.79 |
| 1.70V                   | 122   | 102   | 72.8  | 53.6  | 43.4 | 18.8 | 11.7 | 6.61 | 7.67 |
| 1.75V                   | 113   | 95    | 69.6  | 51.3  | 41.7 | 18.3 | 11.4 | 6.50 | 7.54 |
| 1.80V                   | 104   | 88    | 66.0  | 49.0  | 40.1 | 17.8 | 11.1 | 6.40 | 7.41 |

Constant power discharge ratings-watts per cell at  $20^{\circ}C(68^{\circ}F)$ 

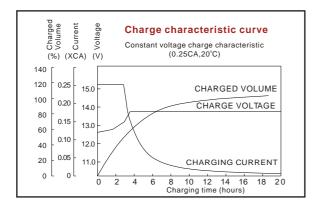
| End Point<br>Volts/Cell | 5min | 10min | 15min | 30min | 45min | 1h   | 2h   | 3h   | 5h   |
|-------------------------|------|-------|-------|-------|-------|------|------|------|------|
| 1.60V                   | 340  | 250   | 202   | 137   | 101   | 83.7 | 52.0 | 38.0 | 25.1 |
| 1.65V                   | 325  | 240   | 195   | 133   | 98.0  | 81.2 | 50.6 | 37.0 | 24.6 |
| 1.70V                   | 308  | 230   | 188   | 128   | 95.3  | 78.8 | 49.1 | 35.9 | 24.1 |
| 1.75V                   | 292  | 220   | 180   | 123   | 92.6  | 76.4 | 47.7 | 34.9 | 23.6 |
| 1.80V                   | 277  | 209   | 171   | 118   | 89.0  | 73.8 | 46.2 | 33.8 | 23.1 |

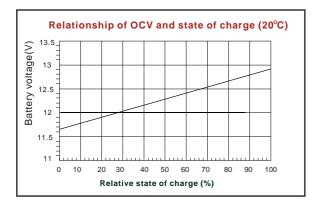
| Internal resistance          | Fully charged at 20°C: 4.9 mOhms              |          |          |  |  |
|------------------------------|---|----------|----------|--|--|
| Self discharge               | $<3\%$ of capacity per month at 20 $^\circ C$ |          |          |  |  |
| Operating temperature range  | Discharge                                     | Charge   | Storage  |  |  |
| Operating temperature range  | -20~60°C                                      | -10~60°C | -20~60°C |  |  |
| Short circuit current (20°C) | 2500A   |          |          |  |  |

| CHARGE METHODS: Constant voltage charging at 20°C(68°F) |                      |                |                          |  |  |  |  |
|---|----------------------|----------------|--------------------------|--|--|--|--|
|   | Max. Charge current  | Charge voltage | Temperature compensation |  |  |  |  |
| Standby use   | $0.3C_{10}A$         | 13.613.8V      | -20mV/ °C                |  |  |  |  |
| Cyclic use  | 0.3C <sub>10</sub> A | 14.414.7V      | -30mV/°C                 |  |  |  |  |



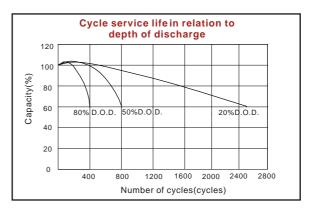
### Charge / Discharge Tables & Graphs

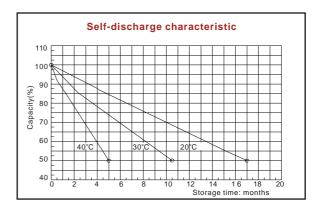




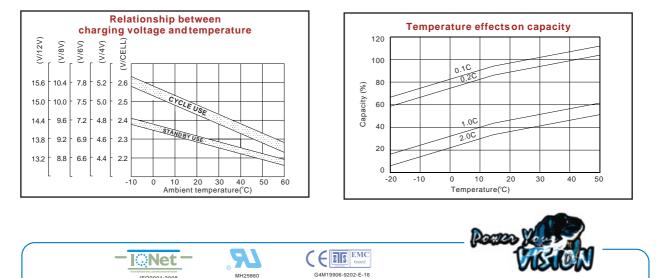
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