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

EV31-115A-AM

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.

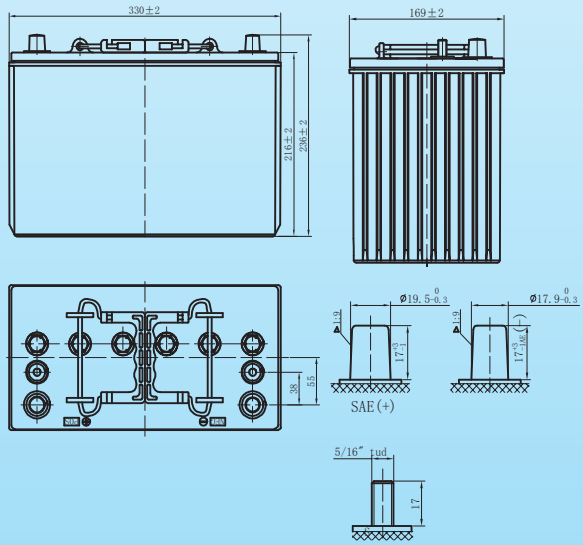
General Features

- 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)	330 / 13.0
Width(mm / inch)	169 / 6.7
Height(mm / inch)	216 / 8.5
Total Height(mm / inch)	236 / 9.3
Approx. Weight(Kg / lbs)	74.1 / 33.6

* Weight deviation: ± 3%



Battery Specification

Performance Characteristics	
Nominal Voltage	12V
Industry Type No.	31
Terminal	AM
Ampere Hour Capacity	
20 hour	115Ah
10 hour	105Ah
5 hour	96Ah
Internal Resistance	
Fully Charged at 20℃	3.9 mOhms
Self-Discharge	
<3% of capacity per month at 20℃(average)	
Minutes of Discharge	
@25A	228 min
@75A	63 min
R/C @25A	205
Cranking Amps	
32°F/0℃	975
0°F/-18℃	750
Operating Temperature Range	
Discharge	-20~60℃
Charge	-10~60℃
Storage	-20~60℃
Short circuit current 20℃	3100A
Charge methods: constant voltage charging at 20℃(68°F)	
Standby use	
Maximum charging current	$0.3C_{10}A$
Charge voltage	13.6-13.8V
Temperature compensation	-20mV/℃
Cyclic use	
Maximum charging current	$0.3C_{10}A$
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	254	198	123	94.9	81.1	31.5	20.0	11.2
1.65V	245	193	120	92.5	79.5	31.0	19.8	11.0
1.70V	227	180	116	89.9	77.8	30.6	19.6	10.8
1.75V	216	173	110	86.6	75.8	29.9	19.2	10.5
1.80V	197	158	105	83.4	74.1	29.4	18.9	10.4

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

End Point Volts/Cell	10min	15min	30min	45min	1h	2h	3h	5h
1.60V	429	332	205	153	126	74.4	55.6	36.0
1.65V	422	328	201	149	124	73.4	54.8	35.7
1.70V	400	311	195	146	121	72.3	53.9	35.3
1.75V	392	304	188	142	118	71.1	52.9	34.8
1.80V	368	285	181	138	115	70.0	51.9	34.4

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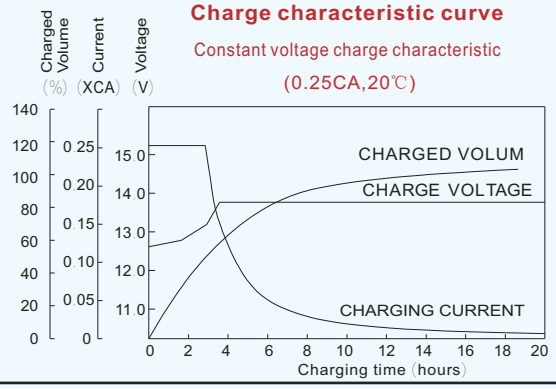
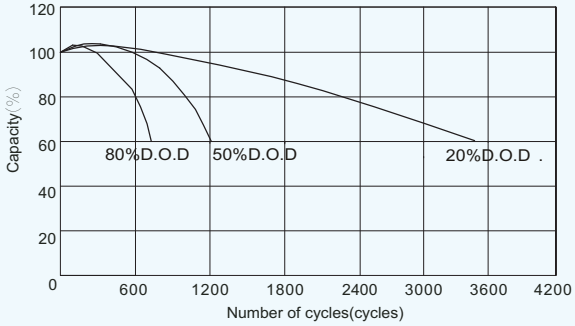
Charge characteristic curve

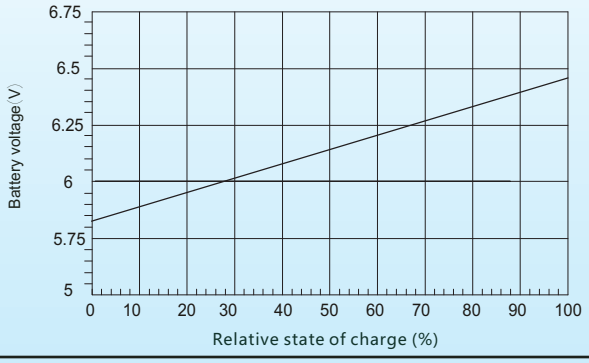
Constant voltage charge characteristic
(0.25CA,20℃)



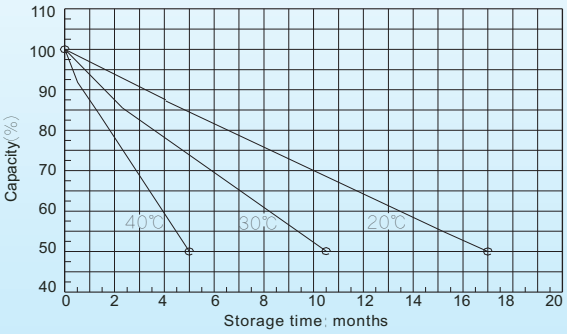
Cycle service life in relation to depth of discharge



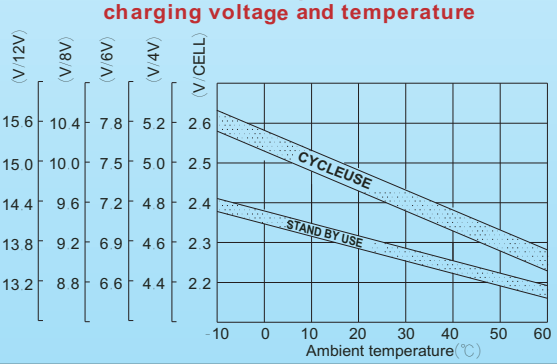
Relationship of OCV and state of charge(20°C)



Self-discharge characteristic



Relationship between charging voltage and temperature



Temperature effects on capacity