SC4D-180A-AT

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.**

ISO 14001
DIN ISO
9001/QS9000

MH25860

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

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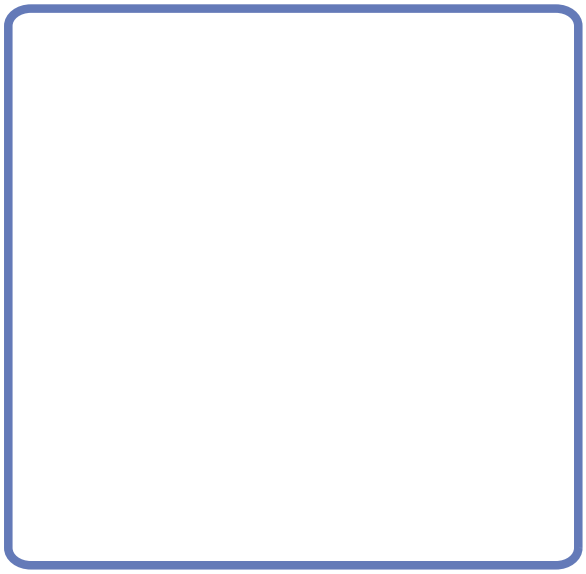
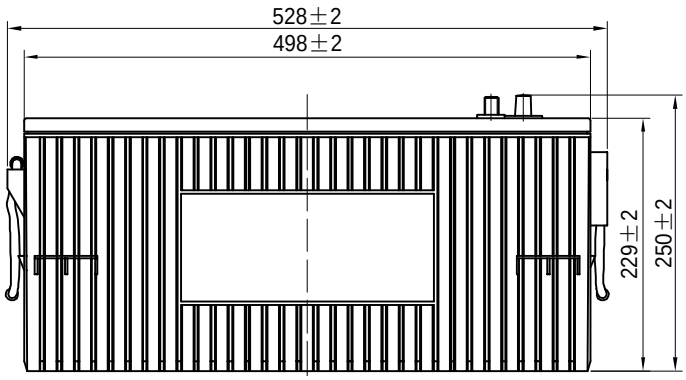
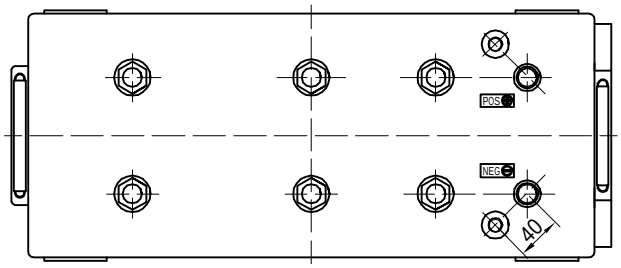
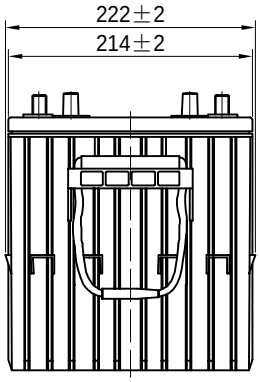
Mechanical Characteristics

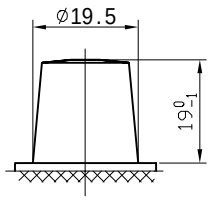
Industry Type No.	Volts	Standard (optional) Terminals	Dimensions in Inches (mm)				Approx. Weight in Lbs (Kgs)
			L in(mm)	W in(mm)	H in(mm)	TH in(mm)	
4D	12	AT	20.8 (528)	8.7 (222)	9.0 (229)	9.8 (250)	128 (58)



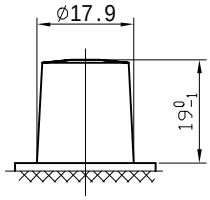


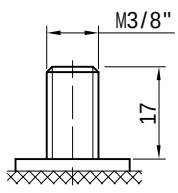






SAE





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Electrical Specifications

Ampere Hour Capacity			Minutes of Discharge		R/C	Cranking Amps	
100HR	10HR	5HR	@25A	@75A	@25A	32°F/ 0°C	0°F/ -18°C
* - Performance averages after 15 cycles							
197	170	151	330	100	430	1500	1150

Constant current discharge ratings-amperes at 20℃(68℉)

End Point Volts/cell	30min	45min	1h	3h	5h	10h	100h
1.60	215	162	127.7	49.2	33.5	18.6	2.16
1.65	206	158	123.1	48.0	32.4	18.1	2.10
1.70	198	154	118.5	46.8	31.3	17.6	2.04
1.75	190	148	113.8	45.6	30.2	17.0	1.97
1.80	180	142	109.2	44.3	28.9	16.5	1.91

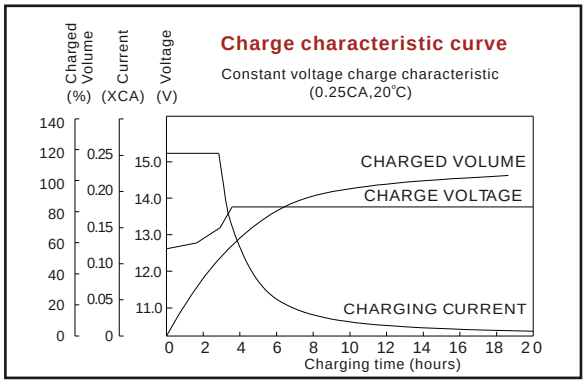
Constant power discharge ratings-watts per cell at 20℃(68℉)

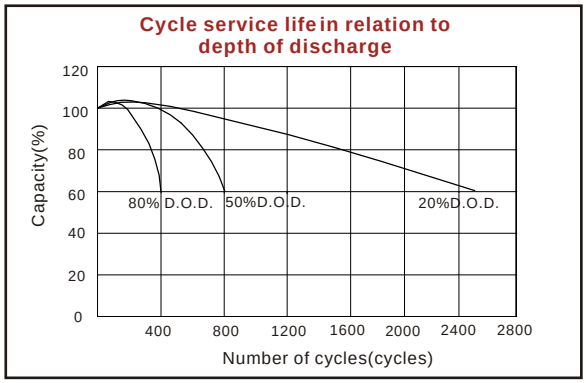
End Point Volts/cell	15min	30min	45min	1h	2h	3h	5h
1.60	---	392	287	227	130	97.2	65.9
1.65	---	380	279	221	127	95.3	64.4
1.70	---	367	270	215	123	92.5	62.9
1.75	---	354	262	208	120	90.7	61.4
1.80	---	341	253	202	116	87.8	59.9

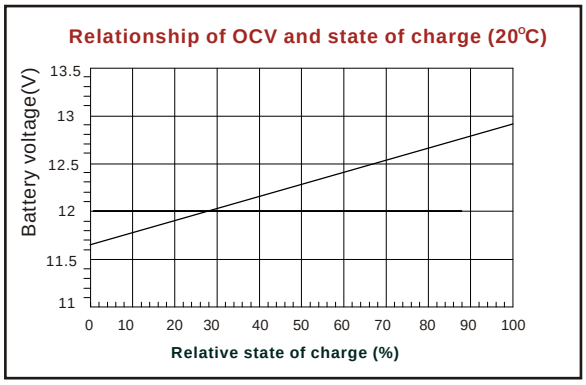
Internal resistance	Fully charged at 20℃: 3 mOhms		
Self discharge	<3% of capacity per month at 20℃		
Operating temperature range	Discharge	Charge	Storage
	-20～60℃	-10～60℃	-20～60℃
Short circuit current (20℃)	4000A		

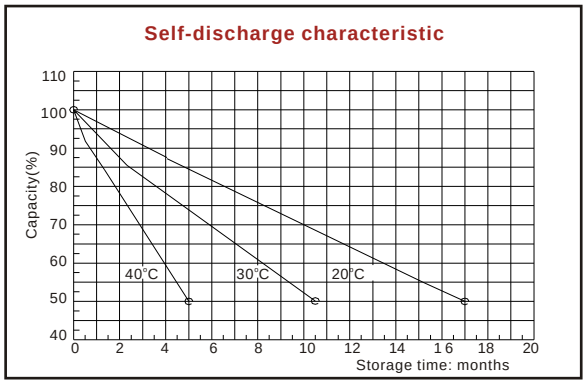
CHARGE METHODS: Constant voltage charging at 20℃(68℉)			
	Max. Charge current	Charge voltage	Temperature compensation
Standby use	$0.3C_{10}A$	13.6--13.8V	-20mV/℃
Cyclic use	$0.3C_{10}A$	14.4--14.7V	-30mV/℃

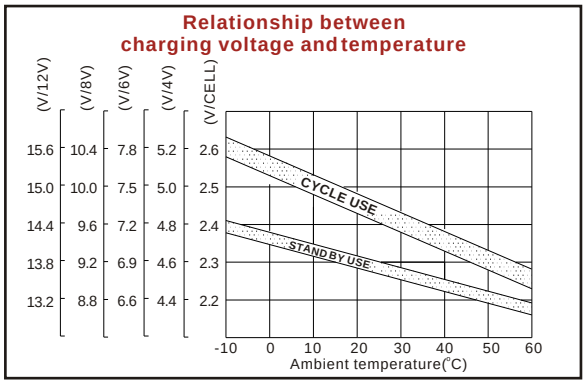
Charge / Discharge Tables & Graphs

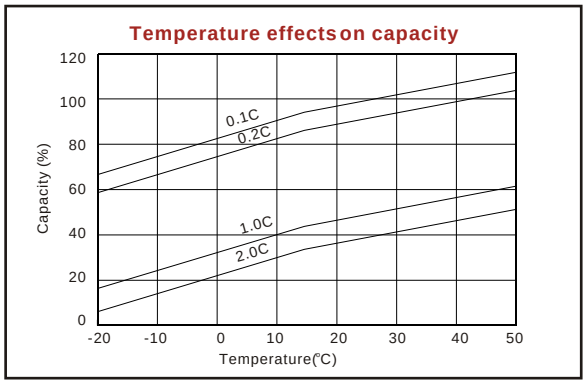












ISO9001:2000
MH25860
G4M19906-9202-E-16

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