

Electric Vehicle AGM

EV Motive AGM Series



GENERAL INFORMATION

EV AGM series is a special **UNIBAT** Absorptive Glass Mat technology series, designed for all Electric Powered Vehicles. Its robust construction guarantees maximum reliability and product consistency under any Heavy Duty Motive Energy demand. Due to its innovative manufacturing process, delivers high capacity output and more power for same volume and footprint.



Plates are made of novel lead – calcium alloy and ultra purity materials, involving the most environmental friendly processing methods. Strict manufacturing and quality control processes, give product superiority and safety needed to be ready for installation as delivered.

Excellent corrosion resistance performance and long cycle life under very low temperatures are also ensured by exceptional container formation and terminal sealing procedures.

High temperature and humidity plate curing technique, make plate high oxidation extend and harms due to vibrations or shocks to be avoided. EV AGM Series is designed for tough applications and repeated deep discharging.

Tested according to international standard IEC 60896-21, IEC 61982-3: 2001 and complies to defined requirements of IEC 60896-22.

Positive Plates : Extra cycle resistant pasted Positive plates are made of multivariate lead grids.

Negative Plates : Negative plates with pasted formula provide large discharge current and high starting performance.

Separator : High porous acid-proof AGM separator allows hydrogen recombination into water, while high absorptive rate reserves quantitative electrolyte for the chemical reaction.

Terminals : Threaded terminals are made of lead-tin alloy with copper insert, conducting electricity reliably and safely.

Electrolyte : They utilize an electrolyte suspension system consisting a high porosity, glass fiber material, which in conjunction with plates, totally absorbs the electrolyte.

Safety Valves : The pressure maintaining ability of relief valve can promote the gas recombination, meanwhile prevent foreign matters get into the battery or contain bulge because of overcharge.

Container - Lid : Made from a ABS (flame retardant optional) material for mechanical strength to ensure vibration proof of the battery.

Handles : Most of the sizes have integrated handles in the lid for easy carrying & installation of the batteries.

DESIGN FEATURES & BENEFITS

- Extra long cycle life and resistance to mechanical stress.
- Increase durability and deep cycle ability (900 cycles @ 50% D.O.D) for heavy demand applications.
- Maintenance-free, Spill proof / leak proof - Multi-position usage
- Very high purity lead (purity rate 99.994%)
- Traction heavy duty grid design gives consistent active material adhesion and corrosion resistance.
- Fully tank formed plates for evenly formed and capacity matched plates.
- Recognized gas recombination efficiency greater than 99.9%
- Flame arresting pressure regulated safety sealing valves.
- Low self-discharge - Very good power to weight ratios

Electric Vehicle AGM

EV Motive AGM Series



APPLICATIONS

- Electric vehicles/scooters/bicycles
- Golf cars/buggies
- Military target/shooting electric car
- Railways/Marine applications
- Cleaning equipment
- Mobility access/wheelchairs
- Battery powered light weight pallet trucks/ platforms/scissors lifts
- Automated Guided Vehicles (AVG's)

RANGE SUMMARY

UNIBAT EV MOTIVE AGM SPECIFICATION TABLE													
BATTERY TYPE	V	AH		DIMENSIONS				max. Charge Current	Reserve Capacity (25A to 1,75Vpc)	Recom. max. Discharge Current (5 sec)	WEIGHT	TERMINALS	
				L	W	H	T.H					TYPE	LAYOUT
				(mm)									
		C20	C5										
205-6 EV	6	205	170	244	185	275	275	47,50	400	1.050	28,80	M8	B
205-6L EV	6	205	170	260	180	247	250	47,50	400	1.050	29,50	M8	B
225-6 EV	6	225	190	244	185	275	275	52,50	450	1.150	29,50	M8	B
225-6L EV	6	225	190	260	180	247	250	52,50	450	1.150	32,00	M8	B
245-6 EV	6	245	207	260	180	268	273	57,50	540	1.265	38,00	M8	B
320-6 EV	6	320	270	295	180	345	365	75,00	725	1.650	50,00	M8	B
160-8 EV	8	160	135	260	180	266	270	37,50	310	900	31,50	M8	C
190-8 EV	8	190	162	260	180	295	300	45,00	370	1.000	39,00	M8	C
7,5-12 EV	12	7,5	6,3	151	65	94	100	1,80	11	105	2,70	F2	F
13-12 EV	12	13	10,8	151	98	95	101	3,00	17	120	4,10	F2	F
22-12 EV	12	22	18	181	77	167	167	5,00	32	180	6,90	M5	D
28-12 EV	12	28	23,4	166	175	125	125	6,50	43	200	8,60	M6	D
37-12 EV	12	37	30,6	194	132	170	170	8,50	60	300	11,60	M6-B	C
50-12 EV	12	50	40,5	196	165	170	170	11,00	80	400	13,50	M6-B	D
55-12 EV	12	55	45	229	138	208	212	12,50	92	450	18,20	M6-B	C
84-12 EV	12	84	68,4	350	167	179	179	20,00	144	500	24,80	M6-B	C
88-12 EV	12	88	72	260	170	210	215	20,00	150	550	26,60	M6-B	C
105-12 EV	12	105	85,5	306	169	208	212	24,00	180	600	30,80	M8	C
110-12 EV	12	110	90	328	171	214	220	25,00	195	600	31,00	M8	C
140-12 EV	12	140	122	342	172	283	288	34,00	270	700	45,50	M8	C
190-12 EV	12	190	162	485	172	240	240	45,00	370	1.000	56,00	M8	C
225-12 EV	12	225	190	522	238	218	222	52,50	450	1.150	65,70	M8	E

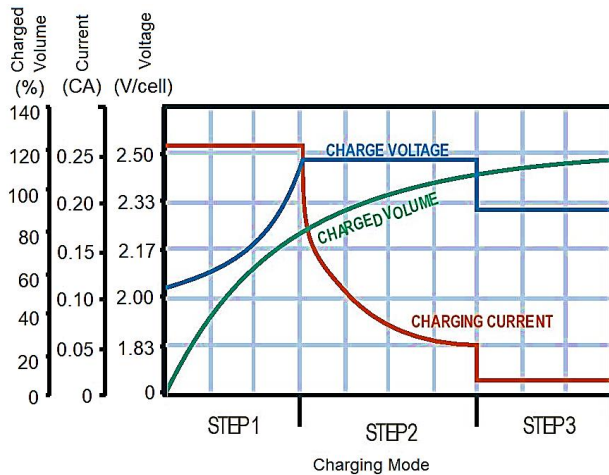
Electric Vehicle AGM

EV Motive AGM Series

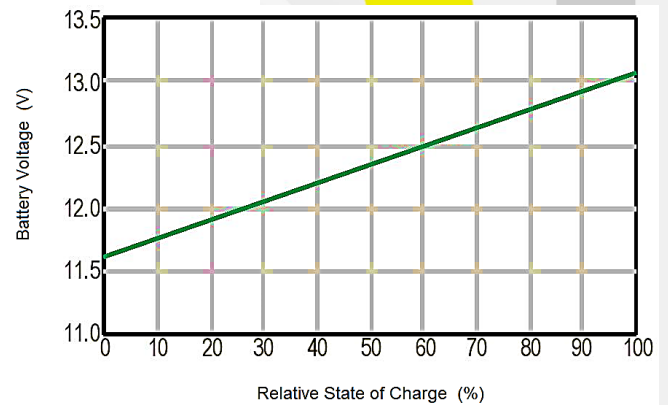


PERFORMANCE CURVES

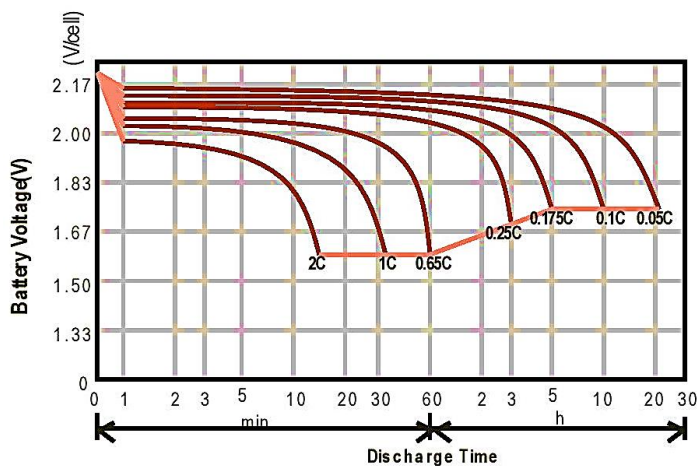
Charge Characteristic Curve (25 °C)



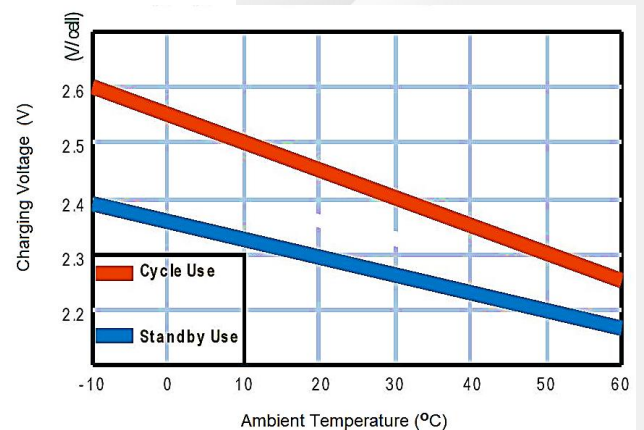
12V Block OCV vs State of Charge (20 °C)



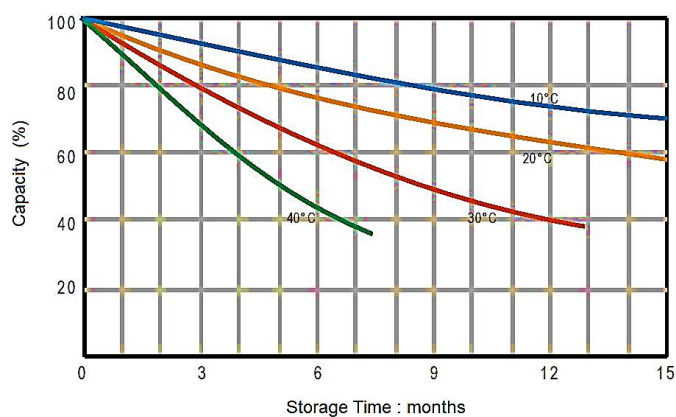
Discharge Characteristic Curves (25 °C)



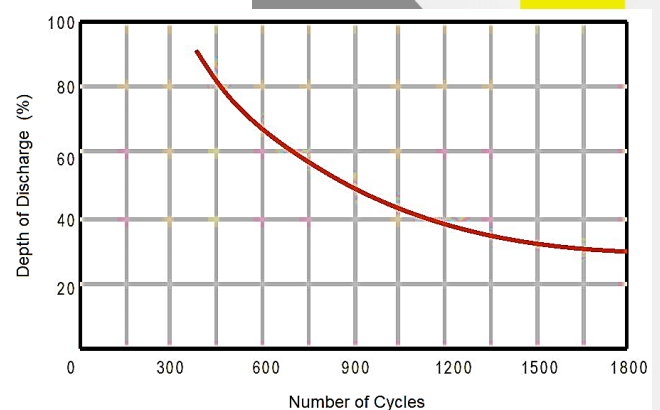
Charging Voltage vs Temperature



Self Discharge vs Capacity



Cycle Life vs D.O.D

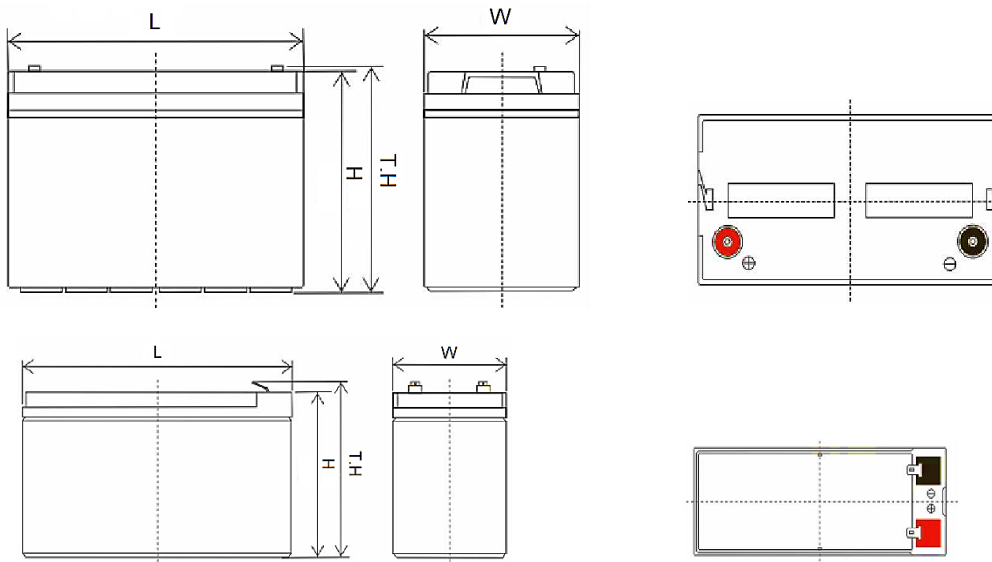


Electric Vehicle AGM

EV Motive AGM Series

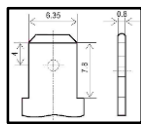


BATTERY DIMENSIONS

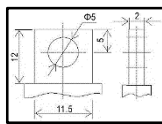


TERMINAL TYPES - LAYOUTS

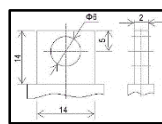
TERMINAL TYPES



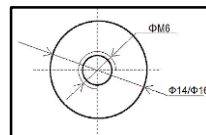
F2



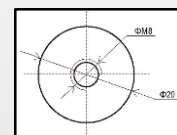
M5



M6



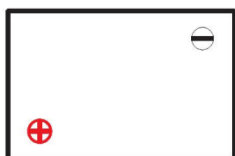
M6-B



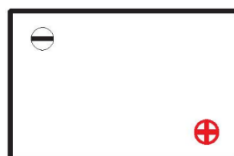
M8

TERMINAL LAYOUTS

A



B



C



D



E



F

