



# EV6-225 (6V225Ah)

EV (Electric Vehicle) series is specially designed for frequent deep cycle discharge. By using the specially designed active material and strong grids, the EV series battery offers reliable performance in high load situations and can deliver more than 300 cycles at 100% DOD. Suitable for mobility scooters, electric wheel chairs, golf buggies etc.



## Specification

Cells Per Unit	3
Voltage Per Unit	6
Capacity	225Ah@10hr-rate to 1.80V per cell @25°C
Weight	Approx. 32.0 Kg( Tolerance $\pm 2\%$ )
Max. Discharge Current	2250A (5 sec)
Internal Resistance	Approx. 2.0 m $\Omega$
Operating Temperature Range	Discharge: -20°C~60°C Charge: 0°C~50°C Storage: -20°C~60°C
Normal Operating Temperature Range	25°C $\pm 5^\circ\text{C}$
Float charging Voltage	6.8 to 6.9 VDC/unit Average at 25°C
Recommended Maximum Charging Current Limit	67.5 A
Equalization and Cycle Service	7.3 to 7.4 VDC/unit Average at 25°C
Self Discharge	RITAR Valve Regulated Lead Acid (VRLA) batteries can be stored for more than 6 months at 25°C. Self-discharge ratio less than 3% per month at 25°C. Please charge batteries before using.
Terminal	Terminal F22/ double terminals
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.



MH28539



G4M20206-0910-E-16



THE INTERNATIONAL CERTIFICATION NETWORK

CERTIFICATE

Postcode: 421001

is in conformity with

ISO 14001:2004 Standard



THE INTERNATIONAL CERTIFICATION NETWORK

CERTIFICATE

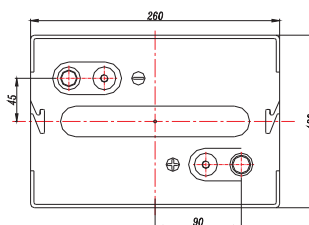
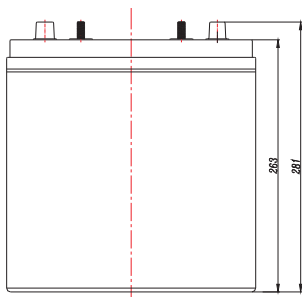
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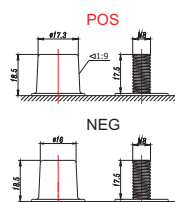
OHSAS 18001:1999 Standard

## Dimensions

Unit: mm Dimension: 260(L)  $\times$  180(W)  $\times$  281(H)



Terminal F22



## Constant Current Discharge Characteristics: A (25°C)

F.V / Time	5 MIN	10 MIN	15 MIN	30 MIN	1 HR	2 HR	3 HR	4 HR	5 HR	8 HR	10 HR	20 HR
4.80 V	804.4	592.2	437.0	255.8	146.3	89.21	60.17	50.03	39.87	28.77	23.41	12.40
5.00 V	781.1	563.5	428.1	251.4	143.3	88.54	59.71	49.80	39.62	28.54	23.18	12.16
5.10 V	758.0	543.6	421.3	246.7	139.7	87.87	58.59	49.57	39.37	28.30	22.95	11.93
5.25 V	680.6	501.6	401.2	244.8	136.8	87.20	57.22	49.10	38.88	28.07	22.73	11.70
5.40 V	614.3	457.4	369.8	240.7	132.8	85.63	56.28	47.94	38.59	27.60	22.52	11.58
5.55 V	524.6	408.8	331.7	225.3	128.0	81.83	55.30	45.63	37.62	26.43	22.26	11.11

## Constant Power Discharge Characteristics: W(25°C)

F.V / Time	5 MIN	10 MIN	15 MIN	30 MIN	1 HR	2 HR	3 HR	4 HR	5 HR	8 HR	10 HR	20 HR
4.80 V	4243	3185	2418	1464	845.0	529.5	357.8	298.2	238.8	171.8	140.4	76.33
5.00 V	4160	3088	2379	1446	843.0	527.8	356.2	297.8	237.1	170.9	139.6	75.01
5.10 V	4112	3006	2361	1433	836.5	524.6	350.8	297.1	236.3	169.8	138.3	73.62
5.25 V	3744	2799	2289	1440	819.9	523.0	343.0	294.4	234.0	168.4	137.0	72.23
5.40 V	3410	2580	2115	1417	796.8	515.1	338.9	287.7	231.5	165.6	135.6	70.84
5.55 V	2995	2355	1942	1334	768.7	492.9	333.1	273.8	226.1	158.6	133.9	68.81

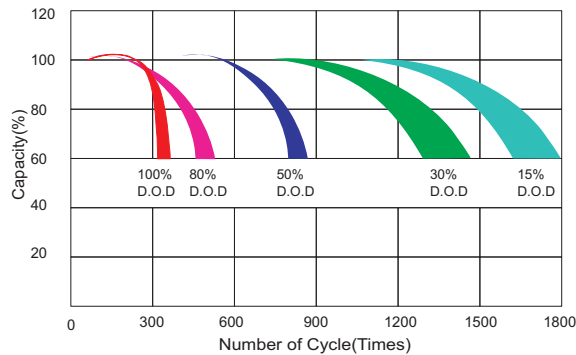
All mentioned values are average values (Tolerance  $\pm 2\%$ ).

# EV6-225

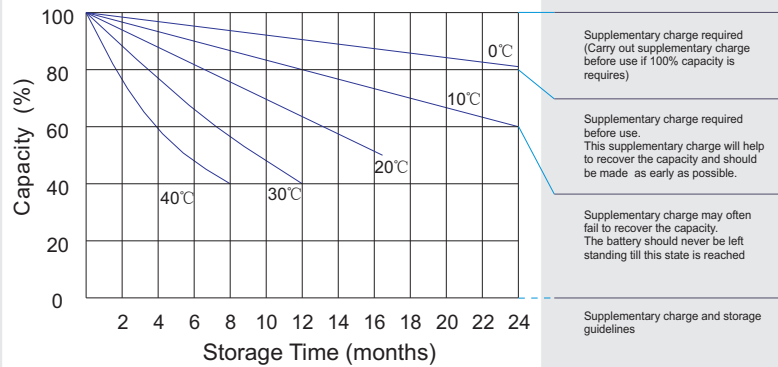
6V225Ah



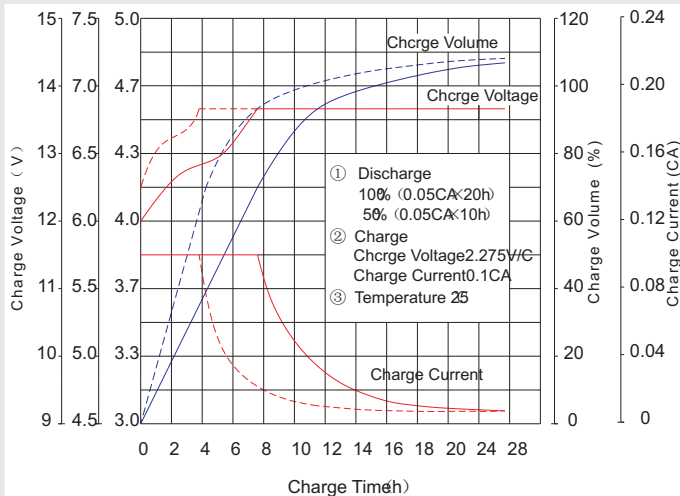
## Life characteristics of cyclic use



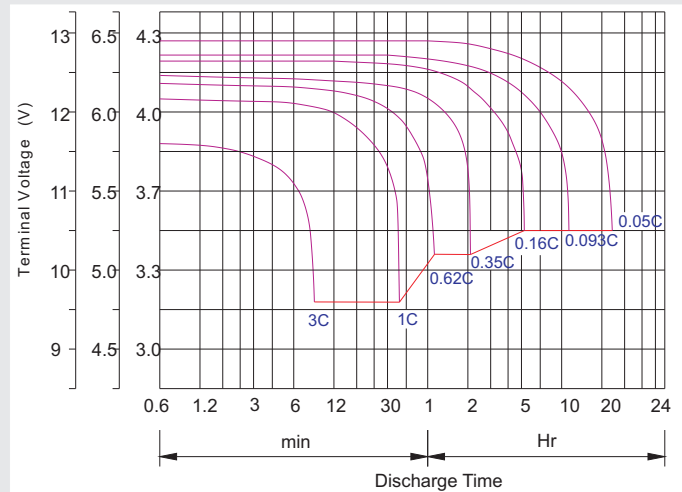
## Storage characteristic



## Charge characteristic Curve for standby use



## Discharge characteristic Curve



## Capacity Factors With Different Temperature

Battery Type		-20°C	-10°C	0°C	5°C	10°C	20°C	25°C	30°C	40°C	45°C
GEL Battery	6V&12V	50%	70%	83%	85%	90%	98%	100%	102%	104%	105%
	2V	60%	75%	85%	88%	92%	99%	100%	103%	105%	106%
AGM Battery	6V&12V	46%	66%	76%	83%	90%	98%	100%	103%	107%	109%
	2V	55%	70%	80%	85%	92%	99%	100%	104%	108%	110%

## Discharge C current V S. Discharge V oltag

Final Discharge Voltage V /cell	1.75V	1.70V	1.60V
Discharge Current (A)	(A) ≤ 0.2C	0.2C < (A) < 1.0C	(A) ≥ 1.0C

Charge the batteries at least once every six months, if they are stored at 25°C.

Charging Method:

Constant Voltage	-0.2Cx2h+2.4-2.45V/cellx24h, Max. Current 0.3C
Constant Current	-0.2Cx2h+0.1Cx12h
Fast	-0.2Cx2h+0.3Cx4h

## Maintenance & Cautions

### Cycle service

- ※ Avoid battery over discharge, especially battery series connection use.
- ※ Charged with recommend voltage, ensure battery can be full recharged.
- In general, recharge capacity should be 1.1-1.15 times discharge capacity.
- ※ Effect of temperature on cycle charge voltage:  $-4mV/Cell$ .
- ※ There are a number of factors that will affect the length of cyclic service.
- The most significant are depth of discharge, ambient temperature, discharge rate, and the manner in which the battery is recharged.
- Generally speaking, the most important factors is depth of discharge.