



EV8-200 (8V200Ah)

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	4
Voltage Per Unit	8
Capacity	200Ah@10hr-rate to 1.80V per cell @25°C
Weight	Approx. 38.0Kg(Tolerance $\pm 2\%$)
Max. Discharge Current	2000 A (5 sec)
Internal Resistance	Approx. 3 m Ω
Operating Temperature Range	Discharge: -40 °C~60°C Charge: -20°C~50°C Storage: -40°C~60°C
Normal Operating Temperature Range	25°C \pm 5°C
Float charging Voltage	9 to 9.2 VDC/unit Average at 25°C
Recommended Maximum Charging Current Limit	60A
Equalization and Cycle Service	9.6 to 9.8 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

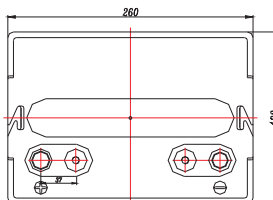
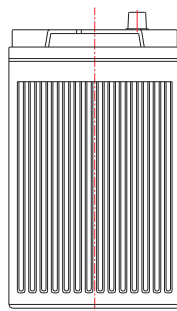
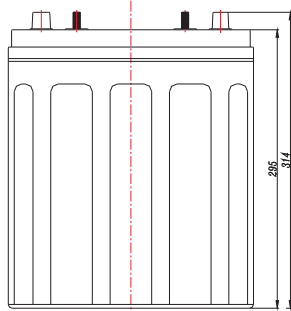
Postcode: 421001

is in conformity with

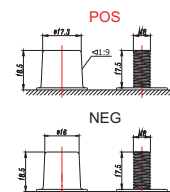
OHSAS 18001:1999 Standard

Dimensions

Unit: mm Dimension: 260(L) \times 182(W) \times 314(H)



Terminal F22



Constant Current Discharge Characteristics: A (25°C)

F.V/Tim e	5M IN	10M IN	15M IN	30M IN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
6.40V	715.0	526.4	388.5	227.4	130.0	79.30	53.49	44.47	35.44	25.57	20.81	11.02
6.67V	694.4	500.9	380.5	223.4	127.4	78.70	53.08	44.26	35.22	25.37	20.61	10.81
6.80V	673.8	483.2	374.5	219.3	124.2	78.11	52.08	44.06	35.00	25.16	20.40	10.61
7.00V	605.0	445.9	356.6	217.6	121.6	77.51	50.86	43.65	34.56	24.95	20.20	10.40
7.20V	546.1	406.6	328.7	213.9	118.0	76.12	50.02	42.62	34.30	24.53	20.02	10.30
7.40V	466.3	363.4	294.8	200.3	113.8	72.74	49.16	40.56	33.44	23.50	19.78	9.878

Constant Power Discharge Characteristics: W (25°C)

F.V/Tim e	5M IN	10M IN	15M IN	30M IN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
6.40V	5029	3775	2866	1735	1001	627.6	424.0	353.4	283.0	203.6	166.5	90.47
6.67V	4930	3659	2820	1714	999.1	625.5	422.2	352.9	280.9	202.6	165.4	88.90
6.80V	4874	3563	2799	1699	991.4	621.7	415.7	352.2	280.0	201.3	163.9	87.25
7.00V	4437	3318	2713	1707	971.8	619.8	406.5	348.9	277.3	199.6	162.3	85.61
7.20V	4041	3058	2507	1679	944.3	610.5	401.6	340.9	274.4	196.3	160.7	83.96
7.40V	3549	2792	2301	1582	911.0	584.2	394.7	324.5	267.9	188.0	158.7	81.55

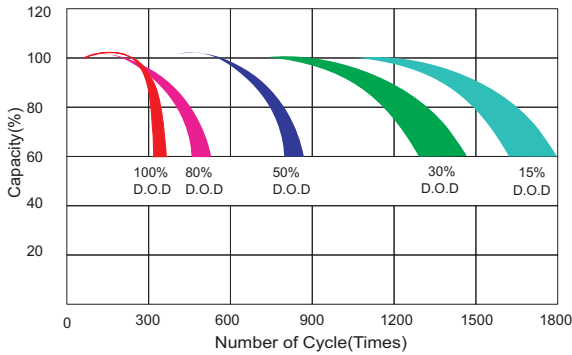
All mentioned values are average values.

EV8-200

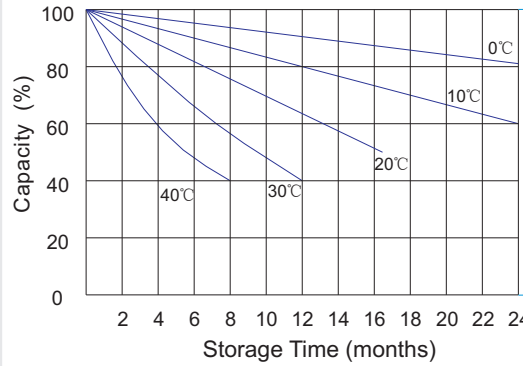
8V200Ah



Life characteristics of cyclic use



Storage characteristic



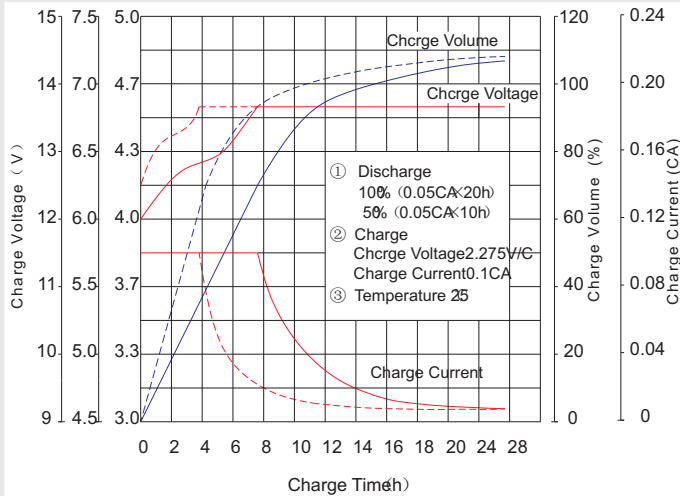
Supplementary charge required (Carry out supplementary charge before use if 100% capacity is requires)

Supplementary charge required before use. This supplementary charge will help to recover the capacity and should be made as early as possible.

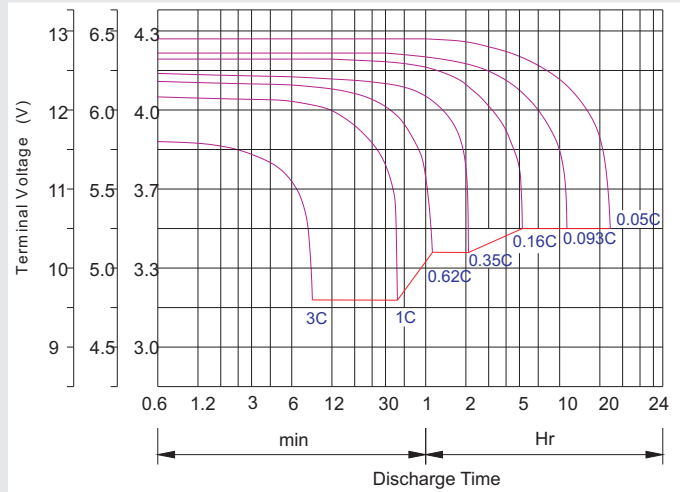
Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this state is reached

Supplementary charge and storage guidelines

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/°C/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.

Bolt	M5	M6	M8
Terminal	F3 F4 F13 F18 T25 T26	F8 F11 F12-1 F15	F5 F9 F10 F12 F14 F16
Torque	6-7N-m	8-10N-m	10-12N-m

SHEN ZHEN RITAR POWER CO.,LTD.

URL:www.ritarpower.com

Address: 10th Floor, Tower C, Building 1, Shenzhen Software Industry Base, Nanshan District, Shenzhen, 518057, China

Tel: +86-755-33981668 Fax: 86-755-8347-5180

2016 - Version 0