



RA12-200DG (12V200Ah)

RA12-200DG is GEL Deep cycle battery superiorly designed for frequent cyclic discharge applications under extreme temperature. By using strong grid to insure reliable performance under frequent cyclic discharge use. 400 cycles could be available at 100% DOD. Offering extra-durable cyclic performance, high efficiency of recovery, that is more suitable for solar, mobility, E-toll, marine, deep discharge UPS etc..



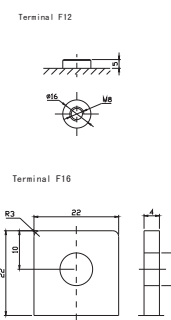
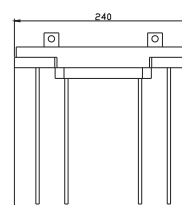
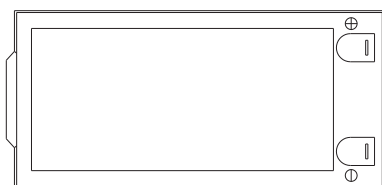
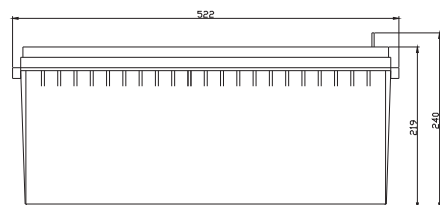
Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	200Ah@10hr-rate to 1.75V per cell @25°C
Weight	Approx. 60.0 Kg
Max. Discharge Current	2000 A (5 sec)
Internal Resistance	Approx. 6 mΩ
Operating Temperature Range	Discharge: -40°C~60°C Charge:-20°C~50°C Storage: -40°C~60°C
Normal Operating Temperature Range	25°C±5°C
Float charging Voltage	13.6 to 13.8 VDC/unit Average at 25°C
Recommended Maximum Charging Current Limit	40A
Equalization and Cycle Service	14.2 to 14.4VDC/unit Average at 25°C
Self Discharge	RITAR 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 F12/F16
Container Material	A.B.S. (UL94-HB), Flammability resistance of UL94-V1 can be available upon request.



Dimensions

Unit: mm Dimension: 522(L)×240(W)×219(H)



Constant Current Discharge Characteristics: A (25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	630.76	451.99	328.87	206.45	116.69	66.614	46.855	38.776	32.655	22.538	19.057	10.078
10.0V	613.90	430.06	322.13	203.04	116.15	66.114	46.675	38.597	32.463	22.355	18.873	9.8948
10.2V	578.48	414.89	317.07	201.24	115.07	65.613	46.316	38.417	32.271	22.172	18.690	9.7115
10.5V	519.45	382.84	301.89	196.22	114.00	65.112	46.137	38.058	31.886	21.988	18.507	9.5283
10.8V	468.85	349.11	278.28	187.60	111.30	63.943	44.880	37.161	31.310	21.622	18.324	9.3451
11.1V	408.14	312.01	249.61	175.75	105.74	61.105	42.905	35.365	29.965	20.706	17.774	8.7953

Constant Power Discharge Characteristics: W (25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.6V	6007.5	4392.9	3234.4	2329.8	1334.6	766.32	540.71	448.08	378.03	261.53	214.28	113.18
10.0V	5884.7	4195.8	3167.2	2300.7	1328.1	763.31	539.64	447.00	375.72	260.43	212.08	112.09
10.2V	5555.0	4056.0	3124.2	2273.8	1318.4	756.30	536.41	444.85	374.57	258.24	210.98	110.99
10.5V	5002.2	3747.8	2979.1	2222.1	1305.5	749.29	533.17	441.62	371.11	256.04	208.79	109.89
10.8V	4499.6	3402.9	2737.2	2120.8	1273.2	738.27	520.25	429.77	365.35	250.54	206.59	108.79
11.1V	3884.0	3022.1	2444.2	1987.3	1206.4	704.21	494.40	409.31	346.91	241.75	199.99	104.39

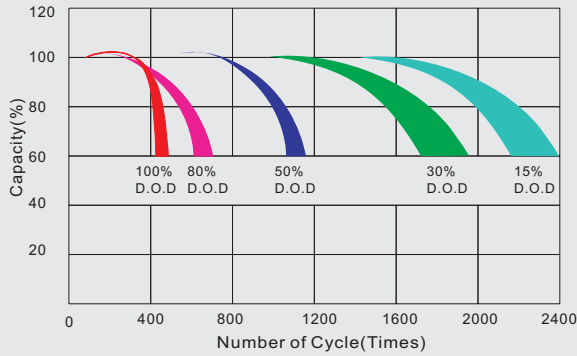
All mentioned values are average values.

RA12-200DG

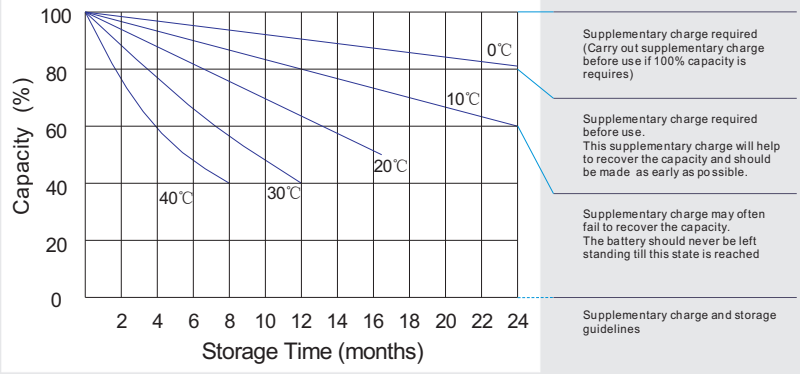
12V200Ah



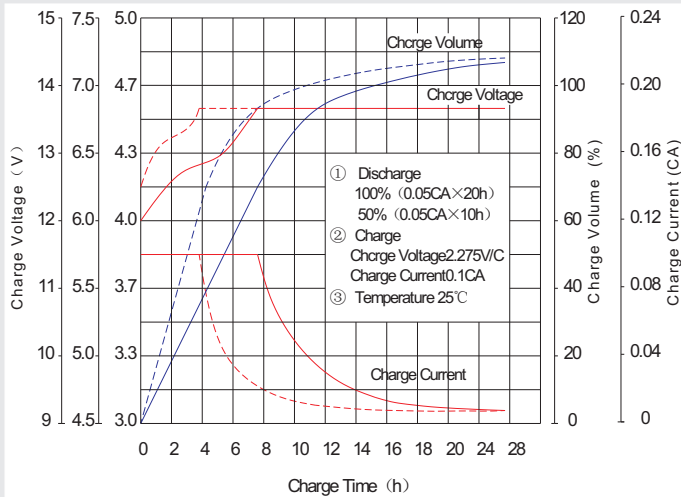
Life characteristics of cyclic use



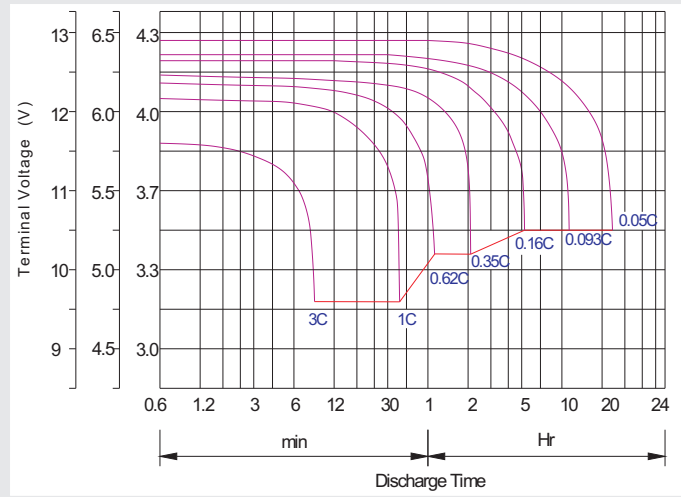
Storage characteristic



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 Current VS. Discharge Voltage

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

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.

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 0.3CA
Constant Current	-0.2Cx2h+0.1CAx12h
Fast	-0.2Cx2h+0.3CAx4.0h