



# RA12-200DG (12V200Ah)

12-200DG is GEL deep cycle battery, with 12 years floating design life, with superior design for frequent cyclic discharge applications under extreme temperature. Using strong grids ensures reliable performance under frequent cyclic discharge use. It offers extra-durable cyclic performance, high efficiency of recovery that is more suitable for solar, mobility, E-toll, marine, deep discharge UPS etc..

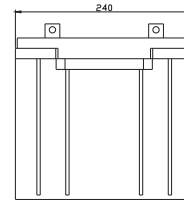
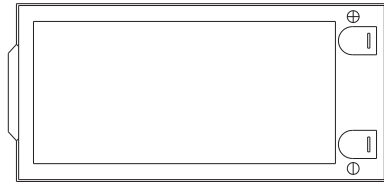
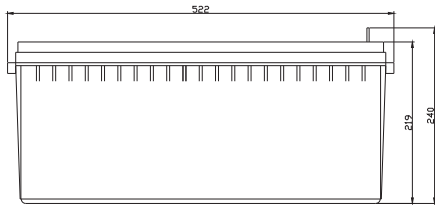
## Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	200Ah@20hr-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	The 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

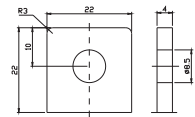
Unit: mm Dimension: 522(L)×240(W)×219(H)



Terminal F12



Terminal F16



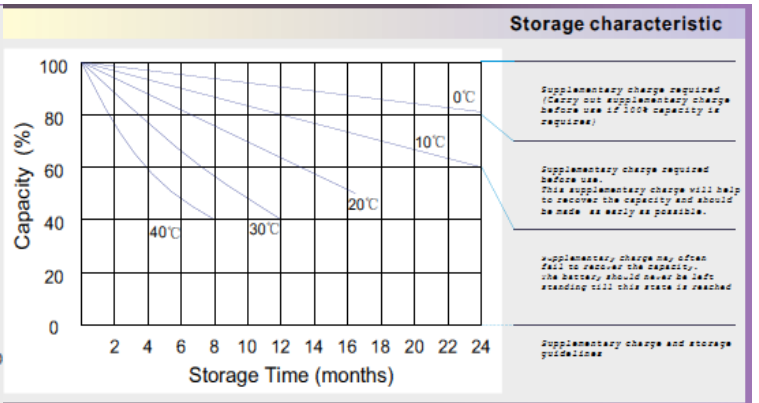
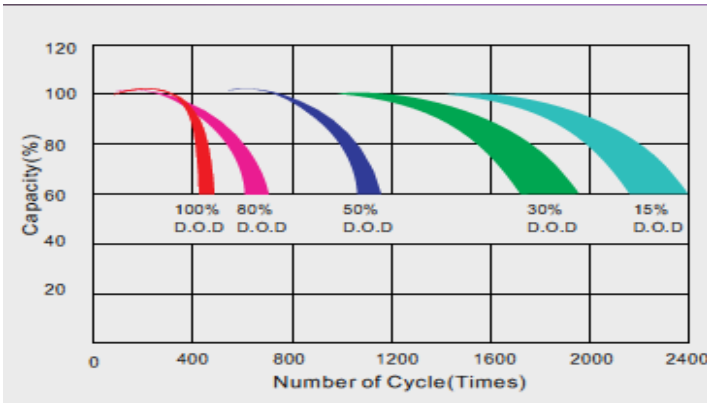
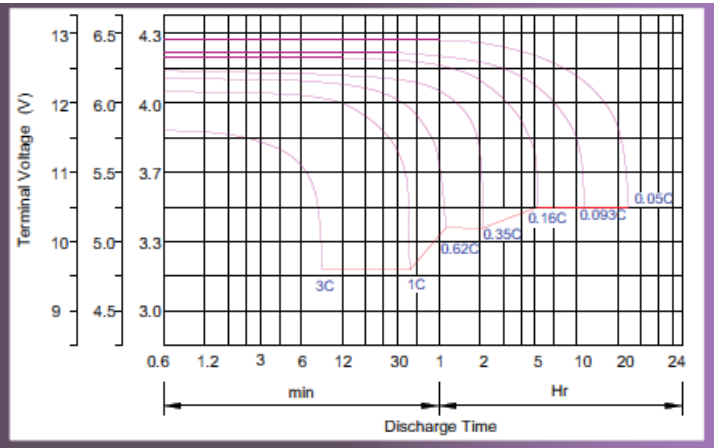
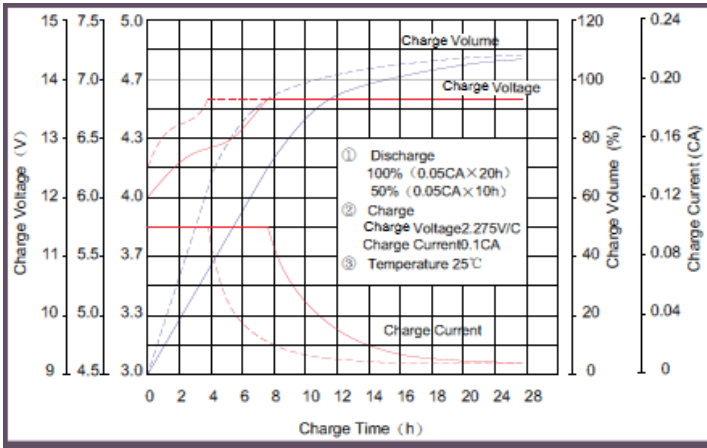
### Constant Current Discharge Characteristics: A (25°C)

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.



### 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

**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

### Maintenance & Cautions

<b>Float Service:</b>
※ Every month, we recommend inspection to check battery voltage.
※ Every three months, we recommend equalization charge once
<b>Equalization charge method:</b>
Discharge: 100% rate capacity discharge.
Charge: Max. current 0.3CA, constant voltage 2.4-2.45V/Cell charge 24h.
※ Effect of temperature on float charge voltage: -3mV/°C/Cell.
※ Length of service life will be directly affected by the number of discharge cycles, depth of discharge, ambient temperature and charging voltage.



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