



# RA12-200G (12V200Ah)

RA12-200G is GEL Standby battery with 10 + years floating design life time .The solid Gel protects no way to suffer electrolyte stratification and ensure mild corrosion, its special separator eradicates infection between plates to prevent short circuit. it offers extra-durable performance under extreme temperature.



## Specification

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



MH28539



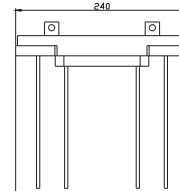
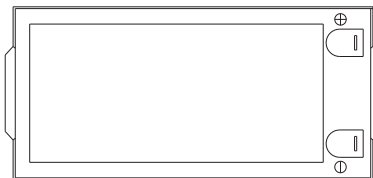
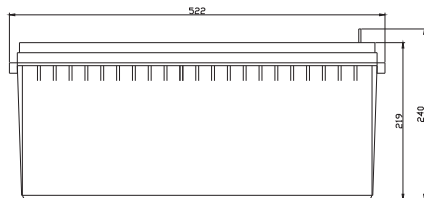
G4M20206-0910-E-16



ISO9001:2000 Certificate

## Dimensions

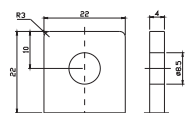
Unit: mm Dimension: 522(L)×240(W)×219(H)



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	501.4	358.8	288.1	193.0	117.7	70.42	48.67	39.89	32.65	22.49	19.02	10.46
10.0V	486.9	341.4	282.1	190.0	117.1	69.89	48.49	39.70	32.46	22.31	18.83	10.27
10.2V	472.5	329.4	277.7	190.2	116.1	69.36	48.11	39.52	32.27	22.12	18.65	10.08
10.5V	429.3	307.5	267.5	187.2	115.0	68.83	47.93	39.15	31.88	21.94	18.47	9.889
10.8V	392.0	283.7	249.5	180.7	112.2	67.59	46.62	38.23	31.31	21.58	18.29	9.699
11.1V	338.5	256.5	226.3	170.9	106.6	64.59	44.57	36.38	29.96	20.66	17.74	9.128

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

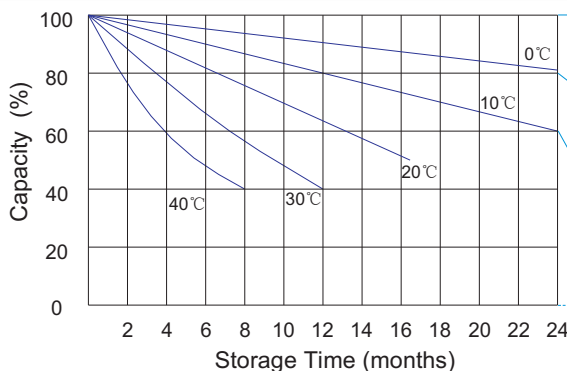
F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	5186	3822	3169	2201	1360	830.0	579.2	475.5	389.5	268.5	227.2	125.4
10.0V	5084	3704	3118	2175	1357	825.6	579.4	474.9	388.5	267.2	225.8	123.2
10.2V	5026	3607	3083	2181	1346	820.6	576.9	473.8	387.2	265.5	223.8	120.9
10.5V	4629	3398	2975	2151	1334	814.7	574.6	469.4	382.6	263.3	221.6	118.7
10.8V	4266	3169	2782	2082	1309	804.3	559.0	458.7	375.7	258.9	219.4	116.4
11.1V	3790	2899	2533	1974	1253	774.4	534.8	436.6	359.5	247.9	212.8	109.5

All mentioned values are average values.

### Effect of temperature on long term float life



### Storage characteristic



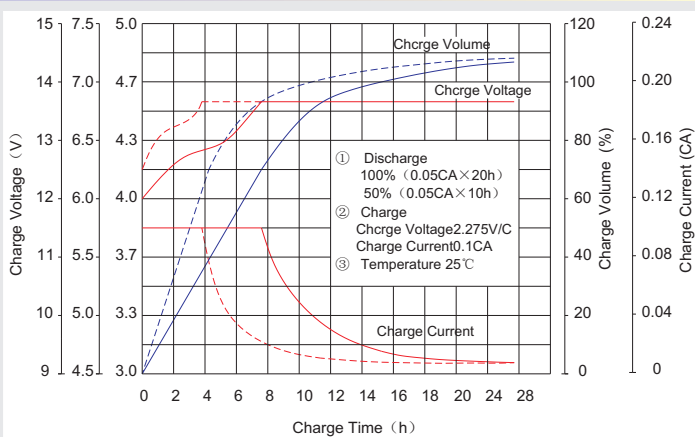
Supplementary charge required (Carry out supplementary charge before use if 100% capacity is required)

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

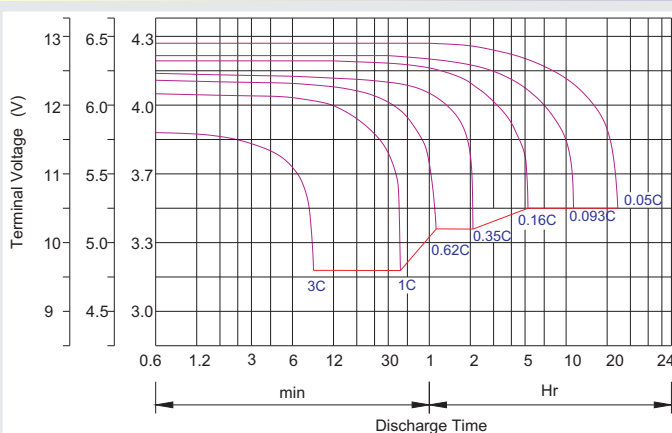
Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this state is reached

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 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

<b>Float Service:</b>
※ Every month, recommend inspection every battery voltage.
※ Every three months, recommend equalization charge for one time.
Equalization charge method:
Discharge: 100% rate capacity discharge.
Charge: Max. current 0.2CA, constant voltage 2.35-2.4V/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.

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

Charging Method:

Constant Voltage	-0.2Cx2h+2.35-2.4V/cellx24h, Max. Current 0.2CA
Constant Current	-0.2Cx2h+0.1CAx12h
Fast	-0.2Cx2h+0.3CAx4.0h