



# RA12-135FG (12V135Ah)

RA12-135FG 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

Cells Per Unit	6
Voltage Per Unit	12
Capacity	135Ah@20hr-rate to 1.75V per cell @25°C
Weight	Approx. 41 Kg
Max. Discharge Current	1350 A (5 sec)
Internal Resistance	Approx. 6.8 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	27 A
Equalization and Cycle Service	14.2 to 14.4 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 F9
Container Material	A.B.S. (UL94-HB), Flammability resistance of UL94-V1 can be available upon request.



MH28539



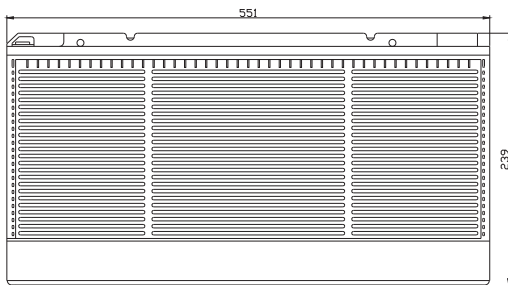
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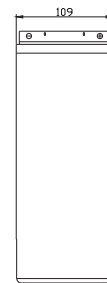
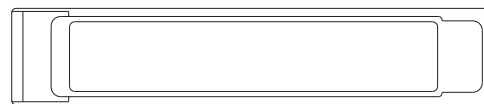
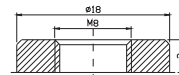
ISO9001:2000 Certificate

## Dimensions

Unit: mm Dimension: 551(L)×109(W)×239(H)



Terminal F9



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

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	338.5	242.2	194.4	130.3	79.43	47.53	32.85	26.93	22.04	15.18	12.84	7.060
10.0V	328.7	230.5	190.4	128.2	79.07	47.17	32.73	26.80	21.91	15.06	12.71	6.932
10.2V	318.9	222.3	187.5	128.4	78.33	46.82	32.48	26.68	21.78	14.93	12.59	6.803
10.5V	289.8	207.6	180.6	126.4	77.60	46.46	32.35	26.43	21.52	14.81	12.47	6.675
10.8V	264.6	191.5	168.4	122.0	75.77	45.63	31.47	25.80	21.13	14.56	12.34	6.547
11.1V	228.5	173.2	152.8	115.4	71.98	43.60	30.08	24.56	20.22	13.95	11.97	6.161

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

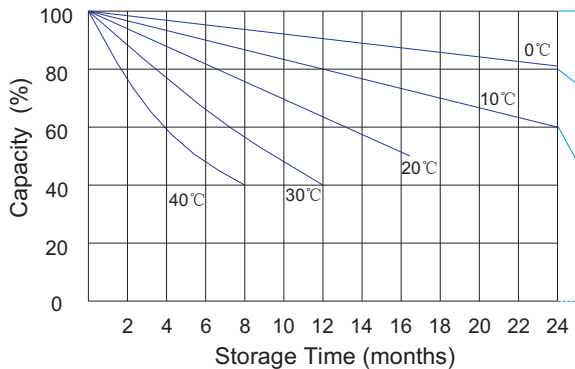
F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	3501	2580	2139	1485	917.9	560.2	391.0	321.0	262.9	181.3	153.4	84.65
10.0V	3432	2501	2104	1468	915.7	557.3	391.1	320.5	262.3	180.4	152.4	83.18
10.2V	3393	2434	2081	1472	908.6	553.9	389.4	319.8	261.4	179.2	151.1	81.64
10.5V	3125	2294	2008	1452	900.5	549.9	387.9	316.9	258.2	177.7	149.6	80.10
10.8V	2879	2139	1878	1405	883.9	542.9	377.3	309.6	253.6	174.8	148.1	78.56
11.1V	2558	1957	1710	1333	846.0	522.7	361.0	294.7	242.7	167.4	143.7	73.94

All mentioned values are average values.

### Effect of temperature on long term float life



### Storage characteristic



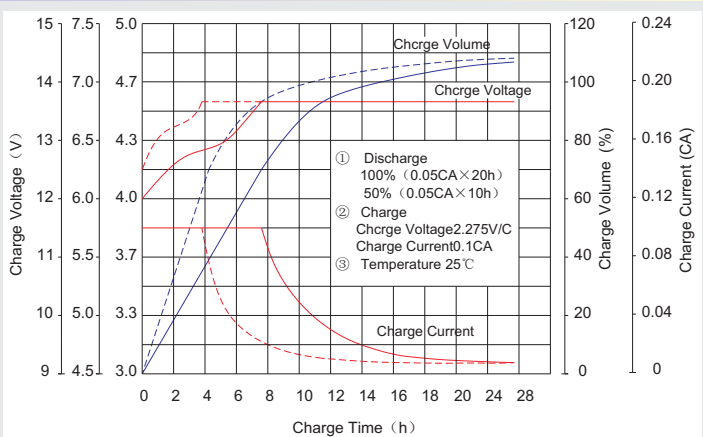
Supplementary charge required (Carry out supplementary charge before use if 100% capacity is required)

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

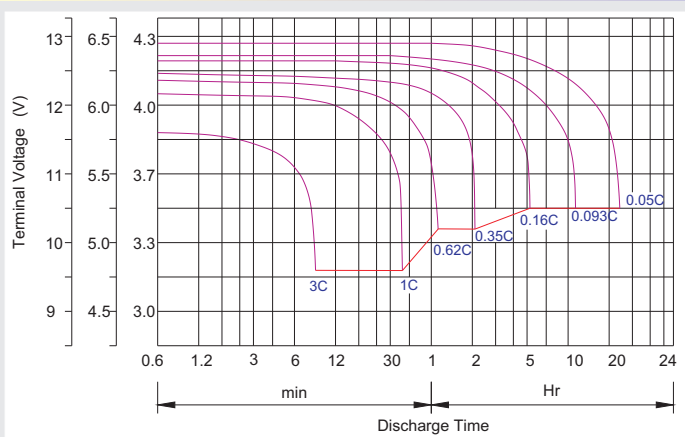
Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this state is reached

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