



RA12-125FDG (12V125Ah)

RA12-125FDG 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	125Ah@20hr-rate to 1.75V per cell @25°C
Weight	Approx. 36.0 Kg
Max. Discharge Current	1250 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	25 A
Equalization and Cycle Service	14.2 to 14.4VDC/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



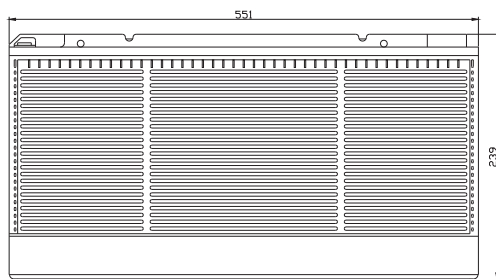
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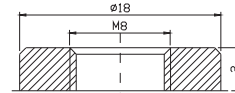
ISO9001:2000 Certificate

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	313.39	224.27	180.03	120.65	73.550	44.011	30.420	24.931	20.407	14.057	11.885	6.5370
10.0V	304.33	213.39	176.34	118.74	73.211	43.680	30.303	24.816	20.287	13.942	11.771	6.4182
10.2V	295.31	205.86	173.57	118.85	72.532	43.349	30.070	24.700	20.167	13.828	11.657	6.2993
10.5V	268.30	192.22	167.20	117.01	71.853	43.018	29.954	24.469	19.927	13.714	11.543	6.1805
10.8V	244.98	177.34	155.92	112.95	70.156	42.246	29.138	23.892	19.566	13.485	11.428	6.0616
11.1V	211.58	160.34	141.46	106.83	66.648	40.371	27.856	22.738	18.726	12.914	11.085	5.7050

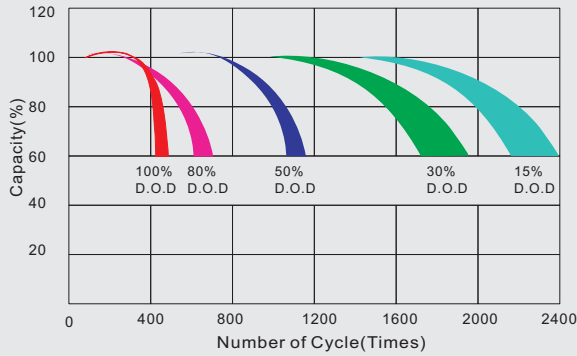
Constant Power Discharge Characteristics: W (25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	3241.5	2388.5	1980.3	1375.4	849.92	518.74	362.00	297.18	243.45	167.84	142.03	78.379
10.0V	3177.6	2315.3	1948.5	1359.6	847.89	515.99	362.13	296.79	242.83	167.03	141.14	77.018
10.2V	3141.3	2254.2	1926.6	1363.2	841.33	512.88	360.54	296.16	242.00	165.94	139.88	75.592
10.5V	2893.4	2124.0	1859.3	1344.5	833.77	509.16	359.15	293.39	239.12	164.56	138.51	74.166
10.8V	2666.0	1980.9	1738.5	1301.2	818.38	502.67	349.36	286.71	234.80	161.82	137.14	72.739
11.1V	2368.6	1811.8	1583.0	1233.9	783.35	484.00	334.27	272.86	224.71	154.97	133.02	68.460

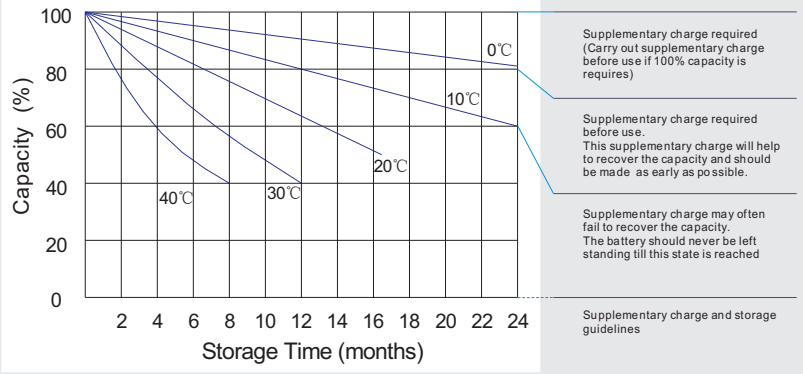
All mentioned values are average values.



Life characteristics of cyclic use



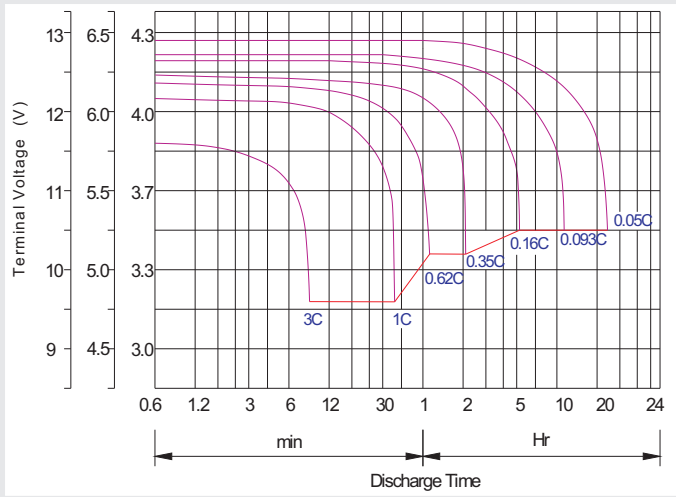
Storage characteristic



Charge characteristic curve for cyclic 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