



# RA8-150DG (8V150Ah)

RA8-150DG 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	4
Voltage Per Unit	8
Capacity	150Ah@20hr-rate to 1.75V per cell @25°C
Weight	Approx. 30.0 Kg
Max. Discharge Current	750 A (5 sec)
Internal Resistance	Approx. 7 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	9 to 9.2 VDC/unit Average at 25°C
Recommended Maximum Charging Current Limit	30 A
Equalization and Cycle Service	9.4 to 9.6 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 F12/F16
Container Material	A.B.S. (UL94-HB), Flammability resistance of UL94-V1 can be available upon request.



MH28539



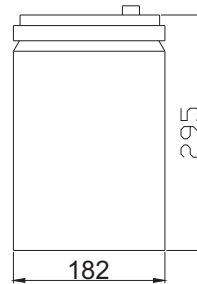
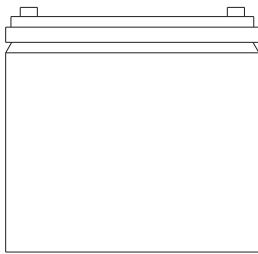
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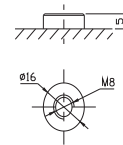
ISO9001:2000 Certificate

## Dimensions

Unit: mm Dimension: 260(L)×182(W)×295(H)



Terminal F12



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

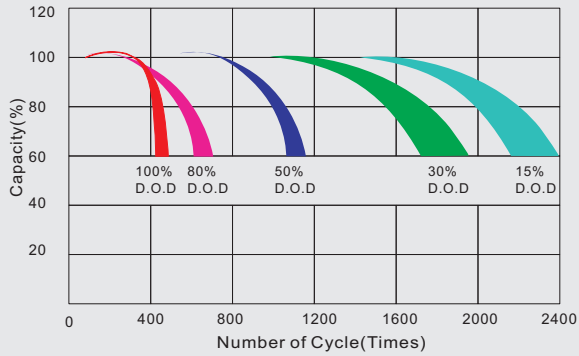
F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
6.40V	376.1	269.1	216.0	144.8	88.26	52.81	36.50	29.92	24.49	16.87	14.26	7.844
6.67V	365.2	256.1	211.6	142.5	87.85	52.42	36.36	29.78	24.34	16.73	14.13	7.702
6.80V	354.4	247.0	208.3	142.6	87.04	52.02	36.08	29.64	24.20	16.59	13.99	7.559
7.00V	322.0	230.7	200.6	140.4	86.22	51.62	35.94	29.36	23.91	16.46	13.85	7.417
7.20V	294.0	212.8	187.1	135.5	84.19	50.70	34.97	28.67	23.48	16.18	13.71	7.274
7.40V	253.9	192.4	169.8	128.2	79.98	48.45	33.43	27.29	22.47	15.50	13.30	6.846

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

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
6.40V	2593	1911	1584	1100	679.9	415.0	289.6	237.7	194.8	134.3	113.6	62.70
6.67V	2542	1852	1559	1088	678.3	412.8	289.7	237.4	194.3	133.6	112.9	61.61
6.80V	2513	1803	1541	1091	673.1	410.3	288.4	236.9	193.6	132.7	111.9	60.47
7.00V	2315	1699	1487	1076	667.0	407.3	287.3	234.7	191.3	131.7	110.8	59.33
7.20V	2133	1585	1391	1041	654.7	402.1	279.5	229.4	187.8	129.5	109.7	58.19
7.40V	1895	1449	1266	987	626.7	387.2	267.4	218.3	179.8	124.0	106.4	54.77

All mentioned values are average values.

### Life characteristics of cyclic use



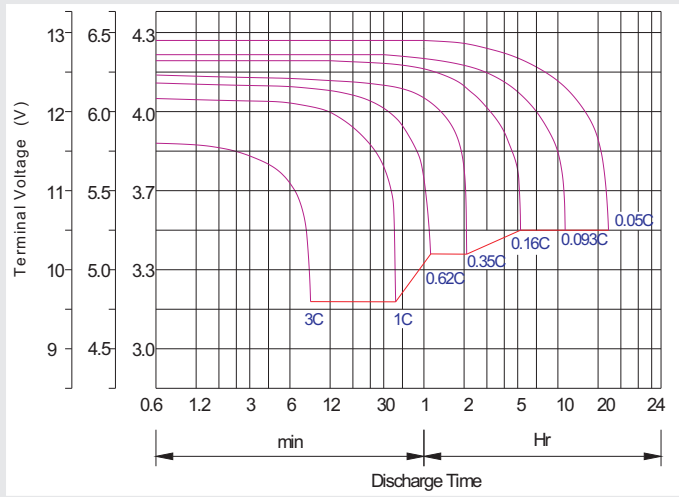
### Storage characteristic



### 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

<b>Cycle service</b>
※ 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