

DC12-100MG(12V100Ah)



Specification

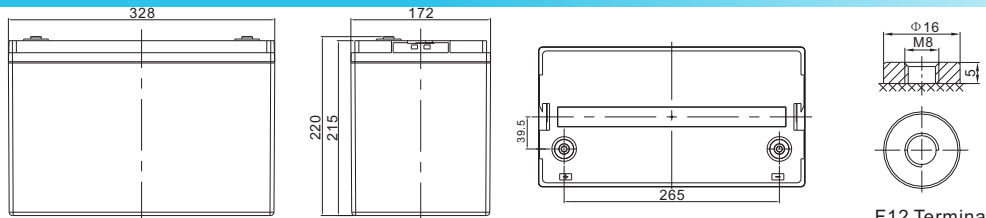


DC-MG (Deep Cycle GEL) series is hybrid GEL battery with 12 years floating design life ,it is ideal for standby or frequent cyclic discharge applications under extreme environments. By using strong grids, high purity lead and patented Gel electrolyte, the DG-MG series offers excellent recovery capability after deep discharge under frequent cyclic discharge use, and can deliver 380 cycles at 100% DOD. Suitable for solar & wind system, CATV, marine, RV and deep discharge UPS, and telecommunication, etc.



Cells Per Unit	6
Voltage Per Unit	12
Capacity	100Ah@20hr-rate to 1.75V per cell @25°C
Weight	Approx. 29.0 Kg (Tolerance ±3. 0%)
Internal Resistance	Approx. 5.0 mΩ
Terminal	F12(M8)/F5(M8)
Max. Discharge Current	1000A (5 sec)
Design Life	12 years (floating charge)
Maximum Charging Current	30.0 A
Reference Capacity	C3 76.4AH C5 86.1AH C10 95.2AH C20 100.0AH
Float Charging Voltage	13.6 V~13.8 V @ 25°C Temperature Compensation: -3mV/°C/Cell
Cycle Use Voltage	14.6 V~14.8 V @ 25°C Temperature Compensation: -4mV/°C/Cell
Operating Temperature Range	Discharge: -20°C~60°C Charge: 0°C~50°C Storage: -20°C~60°C
Normal Operating Temperature Range	25°C ±5°C
Self Discharge	RITAR Valve Regulated Lead Acid (VRLA) batteries can be stored for up to 6 months at 25°C and then recharging is recommended. Monthly Self-discharge ratio is less than 3% at 25°C. Please charged batteries before using.
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.

Dimensions



Length	328±2mm (12.9 inches)
Width	172±2mm (6.77 inches)
Height	215±2mm (8.46 inches)
Total Height	220±2mm (8.66 inches)
Terminal	Value
M5	6~7 N*m
M6	8~10 N*m
M8	10~12 N*m

F12 Terminal

Unit: mm

Constant Current Discharge Characteristics : A(25°C)

F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	230.7	184.6	108.9	60.74	36.17	28.17	22.10	18.80	12.06	10.00	5.183
1.65V	212.5	172.6	103.2	58.67	34.96	27.31	21.44	18.21	11.96	9.905	5.155
1.70V	196.9	162.3	97.81	56.79	34.03	26.15	20.78	17.72	11.77	9.714	5.090
1.75V	180.7	152.0	93.95	55.00	32.72	25.48	20.21	17.22	11.58	9.619	5.000
1.80V	164.4	139.2	90.49	52.56	31.60	25.00	19.74	17.00	11.39	9.524	4.952
1.85V	128.6	115.2	76.73	46.91	28.90	23.27	18.51	15.65	10.73	8.952	4.905

Constant Power Discharge Characteristics : WPC(25°C)

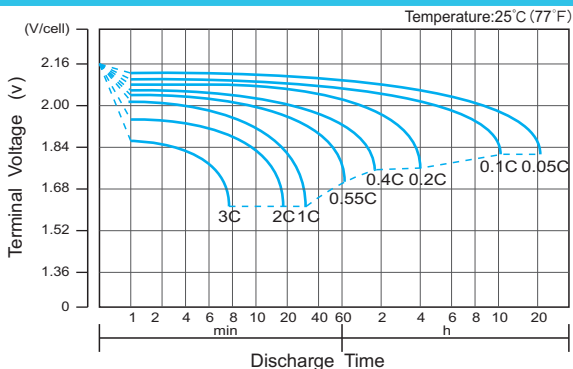
F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	392.8	322.0	197.9	114.0	68.39	53.50	42.59	35.58	23.50	19.61	10.35
1.65V	378.2	313.0	193.2	112.1	66.54	52.17	41.56	34.62	23.31	19.42	10.25
1.70V	353.0	296.3	183.9	108.8	64.88	50.17	40.23	33.76	23.03	19.05	10.16
1.75V	328.5	279.7	177.5	105.8	62.57	48.93	39.29	32.99	22.65	18.86	9.977
1.80V	302.6	258.5	171.8	101.4	61.15	48.65	38.53	32.54	22.28	18.67	9.885
1.85V	240.1	217.2	147.3	91.10	56.31	45.38	36.27	30.10	21.05	17.63	9.792

(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values. The battery must be fully charged before the capacity test. The C₂₀ should reach 95% after the first cycle and 100% after the third cycle.

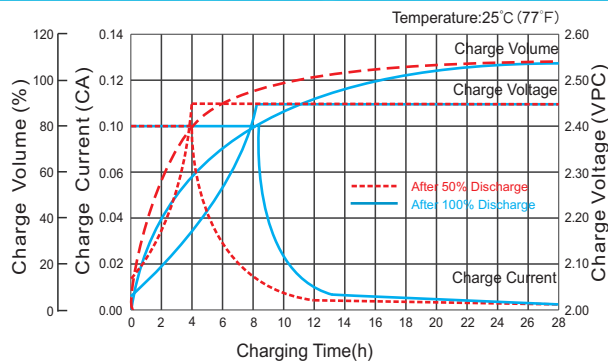
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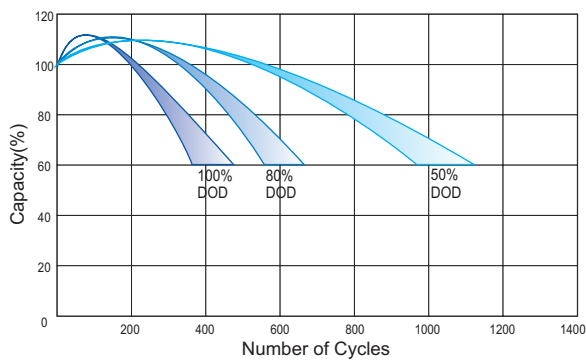
Discharge Characteristics Curve



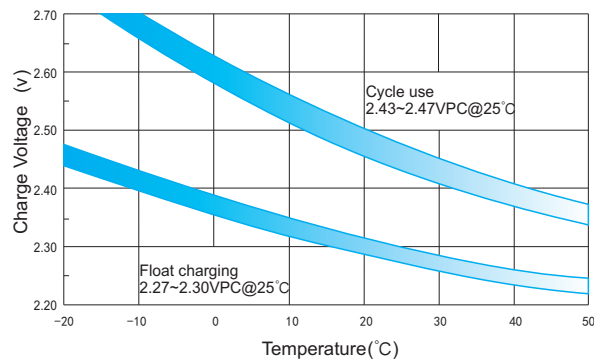
Charge Characteristic Curve for Cycle Use(IU)



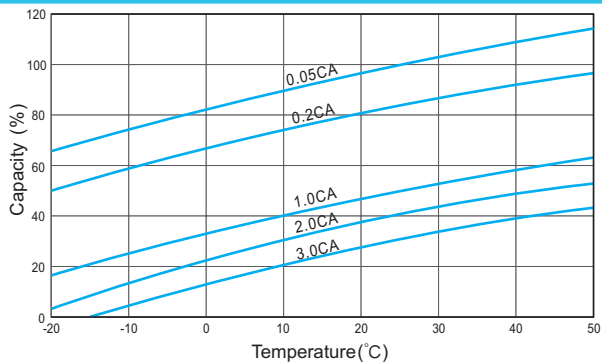
Cycle Life in Relation to Depth of Discharge



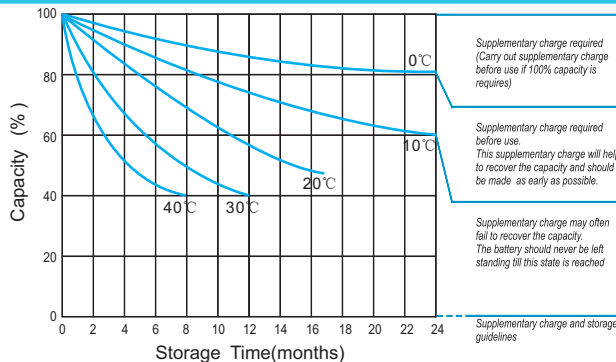
Relationship Between Charging Voltage and Temperature



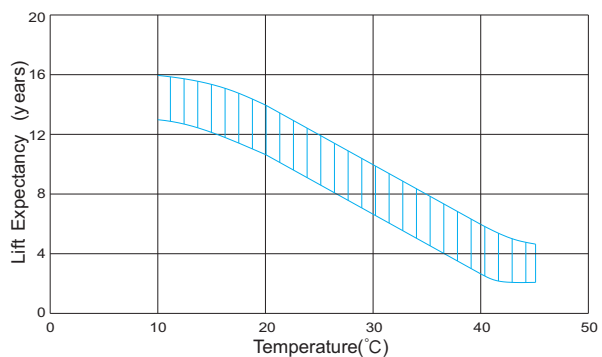
Temperature Effects on Capacity



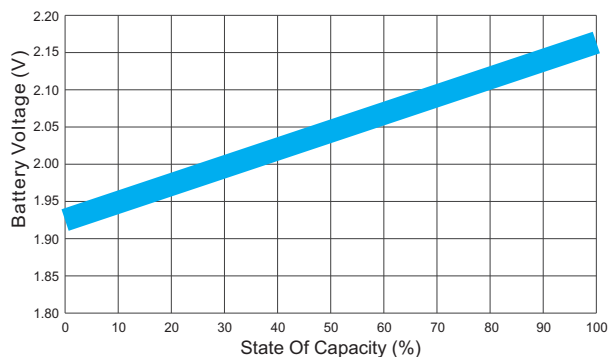
Storage Characteristics



Effect of Temperature on Long Term Life



Relationship of OCV And State of Charge(20°C)



(Note) All above information shall be changed without prior notice, Ritar reserves the right to explain and update the latest information.