

MP-121000-AGR

Features:

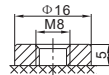
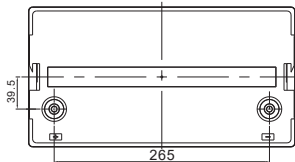
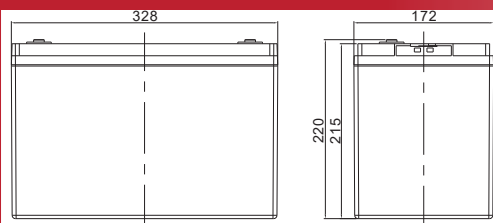
DC-MG (Deep Cycle GEL) series is hybrid GEL battery with 12 years floating design life ,it is ideal for standby or frequent cyclic discharge applications under extreme environments. By using strong grids, high purity lead and patented Gel electrolyte, the DC-MG series offers excellent recovery capability after deep discharge under frequent cyclic discharge use, and can deliver 450 cycles at 100% DOD. Suitable for solar & wind system, CATV, marine, RV and deep discharge UPS, and telecommunication, etc.



Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	100Ah@20hr-rate to 1.75V per cell @25°C
Weight	Approx. 27.0 Kg (Tolerance ±3.0%)
Internal Resistance	Approx. 6.0 mΩ
Terminal	F5(M8)/F5 (M8)
Max. Discharge Current	100A (5 sec)
Design Life	12 years (floating charge)
Max. 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	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 Materia	A.B.S. UL94-HB, UL94-V0 Optional.

Dimensions



F 12 Terminal

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

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	228.2	182.7	107.8	60.74	36.17	27.64	22.10	18.80	12.06	10.00	5.183
1.65V	210.2	170.9	102.1	58.67	34.96	26.79	21.44	18.21	11.96	9.905	5.155
1.70V	194.9	160.7	96.83	56.79	34.03	25.66	20.78	17.72	11.77	9.714	5.090
1.75V	178.8	150.5	93.01	55.00	32.72	25.00	20.21	17.22	11.58	9.619	5.000
1.80V	162.7	137.8	89.58	52.56	31.60	24.53	19.74	17.00	11.39	9.524	4.952
1.85V	127.3	114.0	75.96	46.91	28.90	22.83	18.51	15.65	10.73	8.952	4.905

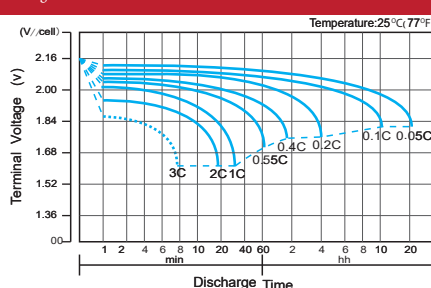
Constant Power Discharge Characteristics : WPC(25°C)

F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	388.7	318.7	195.9	114.0	68.39	52.48	42.59	35.58	23.50	19.61	10.35
1.65V	374.2	309.9	191.3	112.1	66.54	51.17	41.56	34.62	23.31	19.42	10.25
1.70V	349.3	293.3	182.1	108.8	64.88	49.21	40.23	33.76	23.03	19.05	10.16
1.75V	325.0	276.9	175.7	105.8	62.57	48.00	39.29	32.99	22.65	18.86	9.977
1.80V	299.5	255.9	170.0	101.4	61.15	47.73	38.53	32.54	22.28	18.67	9.885
1.85V	237.5	215.0	145.8	91.10	56.31	44.52	36.27	30.10	21.05	17.63	9.792

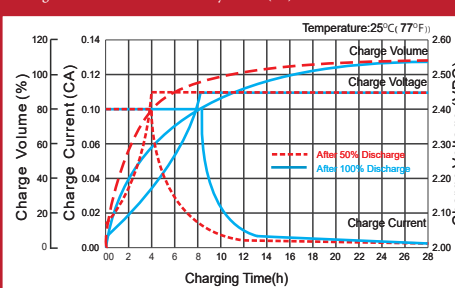
(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values.

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.

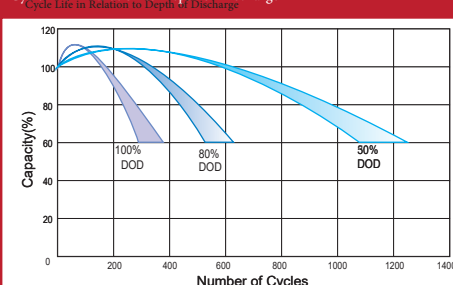
Discharge Characteristics Curve



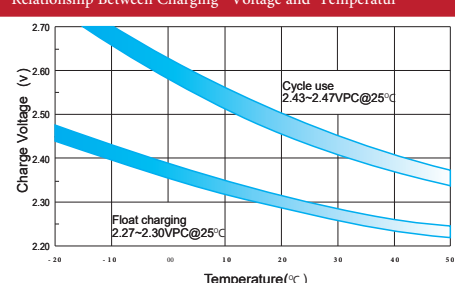
Charge Characteristic Curve for Cycle Use(IU)



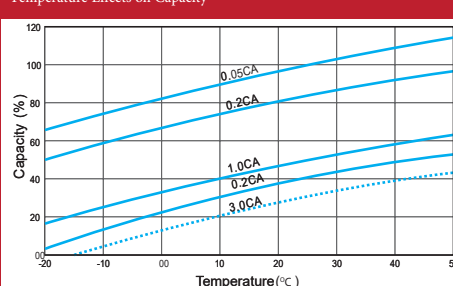
Cycle Life in Relation to Depth of Discharge



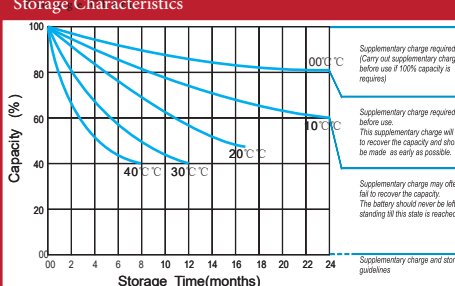
Relationship Between Charging Voltage and Temperature



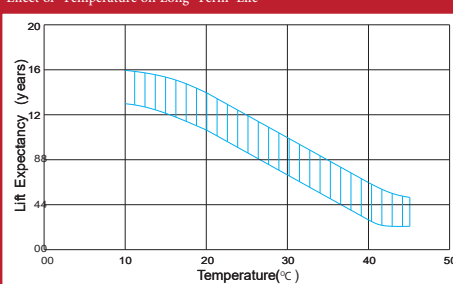
Temperature Effects on Capacity



Storage Characteristics



Effect of Temperature on Long Term Life



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

