

DEEP CYCLE GEL BATTERY

MG9-12

Applications

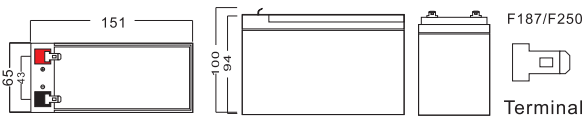
- > Solar / wind energy and other new energy storage
- > UPS/EPS
- > Power systems
- > Telecommunications system
- > Emergency lighting, Auto control system
- > Other general purpose

General Features

- > Nanosilica colloidal electrolyte and high tin positive plate alloy design to enhance battery performance
- > Relatively rich electrolyte, high temperature and low temperature performance is superior
- > Long cycle life, excellent deep cycle discharge ability
- > Excellent charge acceptance ability
- > Precision sealing technology
- > Long life



Dimension: 151(L)×65(W)×94(H)×100(TH) Unit: mm



Specification

Nominal Voltage	12V
Nominal Capacity	9Ah
Design life	12 years
Terminal	F250/F187
Approx. Weight	Approx 2.55kg (5.63lbs)
Container Material	ABS(UL94-V0)
Rated Capacity	9.00Ah 20Hour Rate (0.45A to 10.5V) 8.00Ah 10Hour Rate (0.80A to 10.5V) 5.88Ah 1Hour Rate (5.88A to 9.60V)
Internal resistance	Full charged at 25°C: 20.0 mΩ
Max. Discharge Current	135A(5S)
Operating Temperature	Discharge: -40~60°C(-40~140°F) Charge: -20~50°C(-4~122°F) Storage: -20~50°C(-4~122°F)
Charge current:	Max. 2.25A ; Recom.0.90A
Charge Method (25°C)	Float Charge: 13.5-13.8V, recom. 13.5V(-18mV/°C) Equalize charge: 13.8-14.1V, recom. 14.1V(-24mV/°C) Cycle charge: 14.4-15.0V, recom. 14.4V(-30mV/°C)
Self discharge	3% of capacity declined per month at 25°C

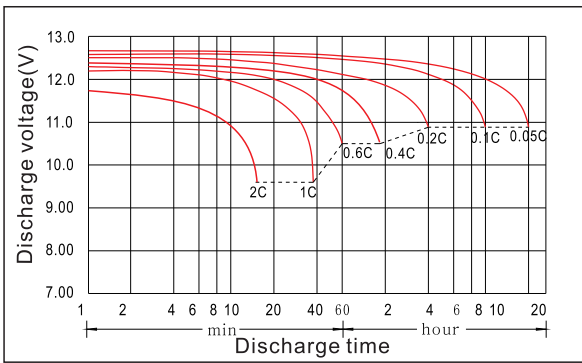
Constant Current Discharge Characteristics Unit: A (25°C, 77°F)

F.V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	34.9	22.9	17.2	11.3	5.88	3.37	2.46	1.98	1.68	1.11	0.896	0.478
1.65V	34.7	21.8	15.8	10.7	5.52	3.24	2.39	1.91	1.64	1.09	0.884	0.469
1.70V	28.4	20.7	14.7	10.4	5.34	3.17	2.35	1.82	1.62	1.07	0.869	0.460
1.75V	26.5	19.5	13.7	10.1	5.17	3.10	2.32	1.78	1.55	1.04	0.848	0.451
1.80V	24.3	18.5	12.8	9.80	4.99	3.02	2.19	1.75	1.49	1.02	0.836	0.433

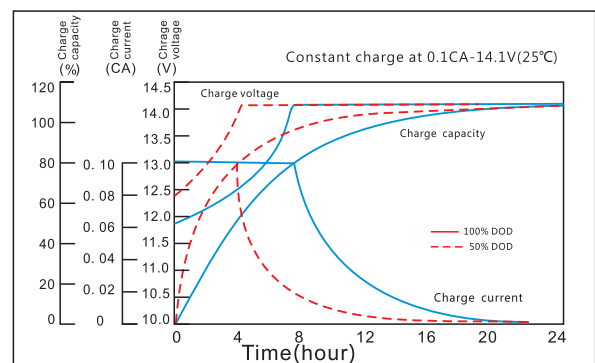
Constant Power Discharge Characteristics Unit: W/cell(25°C, 77°F)

F.V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	65.6	41.1	31.6	19.0	10.83	6.31	4.65	3.74	3.17	2.08	1.74	0.951
1.65V	60.5	38.9	29.5	18.8	10.11	6.07	4.51	3.61	3.10	2.05	1.70	0.922
1.70V	55.2	37.7	28.2	19.0	9.81	5.95	4.44	3.43	3.01	2.03	1.69	0.915
1.75V	50.1	36.6	27.3	18.8	9.52	5.82	4.38	3.37	2.96	1.94	1.65	0.898
1.80V	45.0	35.4	26.0	18.5	9.38	5.77	4.26	3.34	2.89	1.89	1.62	0.893

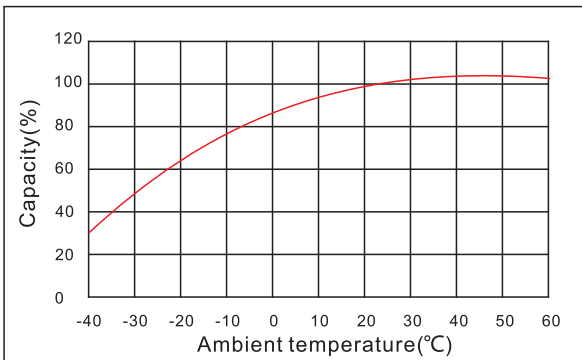
Discharge characteristic



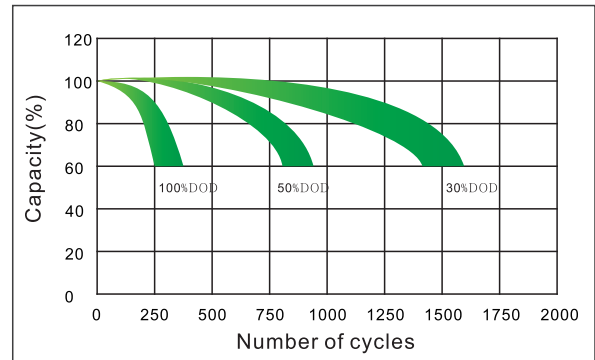
Charging characteristic



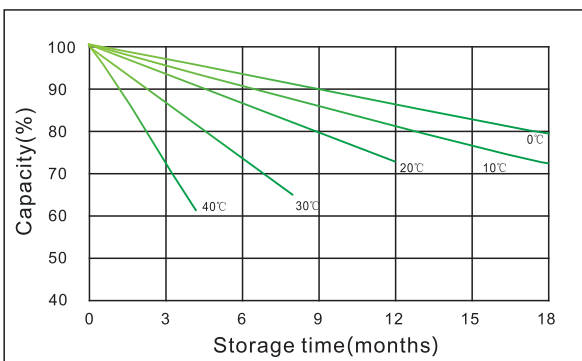
The effect of temperature on capacity



The effect of discharge depth on cycle life



Curves of self-discharge



Curves of open circuit voltage vs. capacity

