

# DEEP CYCLE GEL BATTERY

## MG150-12



### Application

- General purpose
- Uninterruptable Power Supply
- Electric Power System (EPS) Emergency
- Backup power supply
- Auto control system
- Emergency light
- Railway signal
- Aircraft signal
- Alarm and security system Electronic
- Medical equipments



### Specification

Nominal Voltage	12V		
Nominal Capacity	150AH		
Design life	10 years		
Terminal	T13		
Approx. Weight	Approx 45.50kg (100.31lbs)		
Container Material	ABS		
Rated Capacity	150Ah	10Hour Rate	(15.0A to 10.8V)
	117.0Ah	3Hour Rate	(39.0A to 10.8V)
	91.5Ah	1Hour Rate	(91.5A to 9.6V)
Internal resistance	Full charged at 25°C: 3.5 Ohm		
Max. Discharge Current	1500A(5S)		
Operating Temperature	Discharge:	-15 ~50°C (5~ 122 °F)	
	Charge:	0~40°C (32~104 °F)	
	Storage:	-15~40°C (5~104 °F)	
Charge Method (25 °C)	Max. charge Current:	60A	
	Cycle use:	14.4-15.0V(-5mV/ °C)	
	Float use :	13.5-13.8V(-3mV/ °C)	
Self discharge	3% of capacity declined per month at 20 °C		

Unit: mm Dimension:483(L)×170(W) ×240(H)×240(TH)

### Constant Current Discharge (Amperes) at 25 °C (77°F )

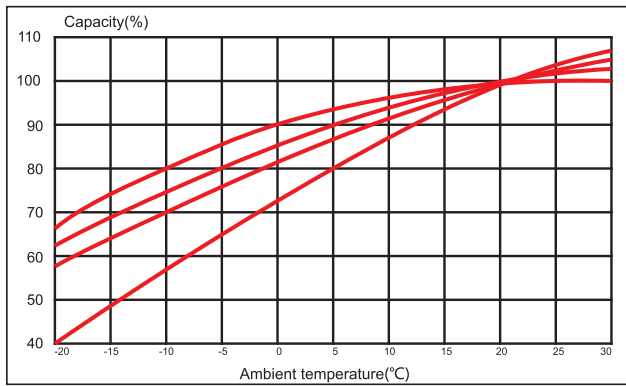
F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	256.7	201.8	171.6	143.6	114.1	86.4	70.7	45.0	35.6	29.1	23.5	20.4	16.6	14.2	7.73
1.80V/cell	344.6	257.9	207.4	169.7	134.6	100.4	79.2	49.2	38.3	31.1	25.2	21.9	17.6	15.0	7.80
1.75V/cell	388.5	283.4	226.5	182.6	139.8	104.2	82.9	51.0	39.0	31.8	25.8	22.5	17.9	15.1	7.88
1.70V/cell	427.9	308.9	241.8	191.9	145.5	108.4	85.5	53.0	40.1	32.6	26.5	23.0	18.1	15.3	8.03
1.65V/cell	471.8	333.3	257.2	203.8	153.5	111.1	88.4	54.5	41.8	33.7	27.2	23.5	18.4	15.6	8.13
1.60V/cell	\	361.9	275.0	217.1	162.0	115.8	91.5	56.3	43.1	34.8	28.1	24.0	18.6	15.8	8.18

### Constant Power Discharge (W/cell) at 25 °C (77°F )

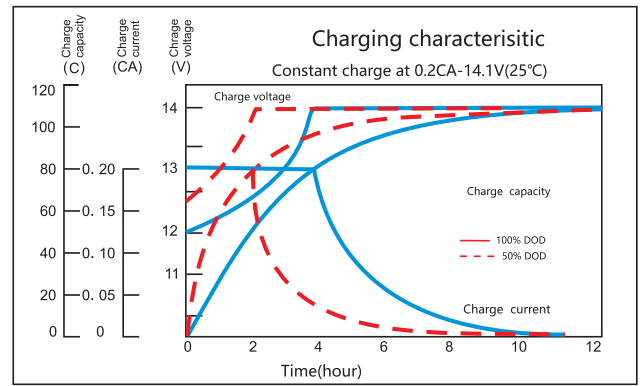
F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	469.4	372.8	320.3	270.6	217.5	166.0	136.4	87.5	69.4	56.9	46.0	40.1	32.7	28.0	15.3
1.80V/cell	623.4	470.8	381.8	315.2	252.7	191.6	152.0	94.8	74.3	60.4	49.1	42.9	34.6	29.6	15.4
1.75V/cell	687.9	509.0	411.9	335.8	260.2	196.9	158.3	98.0	75.4	61.5	50.3	43.9	35.1	29.9	15.6
1.70V/cell	736.5	542.2	433.6	350.3	269.3	204.0	162.7	101.7	77.3	63.0	51.4	44.8	35.6	30.2	15.8
1.65V/cell	800.6	579.8	457.5	369.3	281.8	207.2	167.0	103.9	80.2	65.0	52.7	45.6	36.1	30.7	16.0
1.60V/cell	/	615.1	481.2	389.2	295.4	214.8	172.0	106.9	82.3	66.8	54.2	46.5	36.3	31.0	16.1

# Model Performance Diagrams

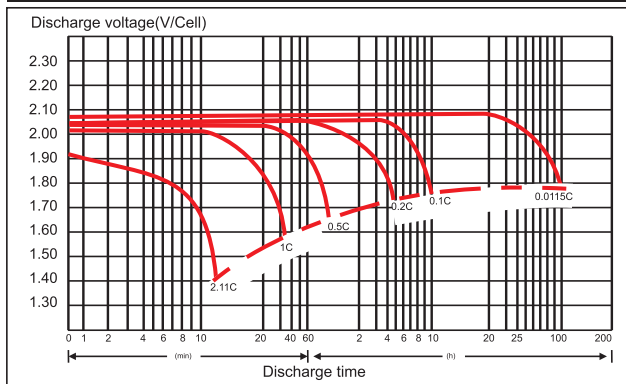
Curves of discharge capacity and ambient temperature



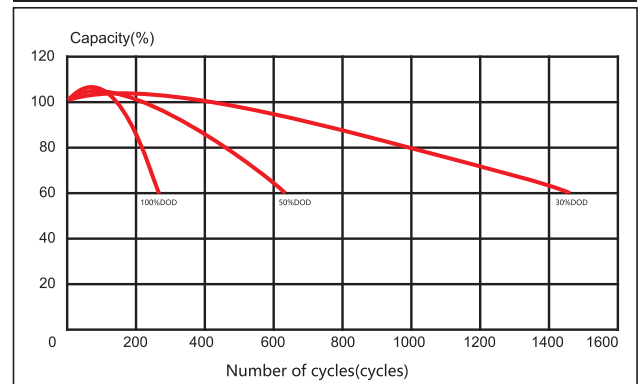
Curves of charging characteristics



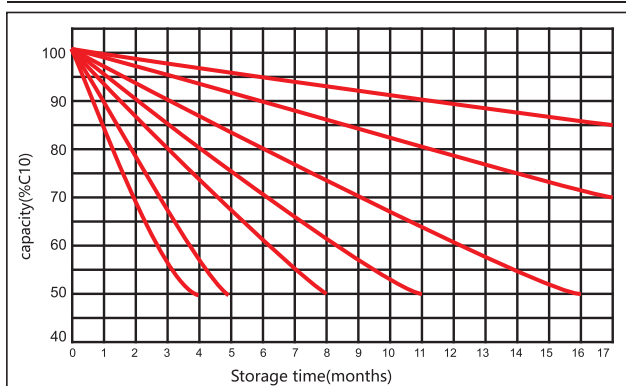
Discharge characteristics at different discharge rate(20°C)



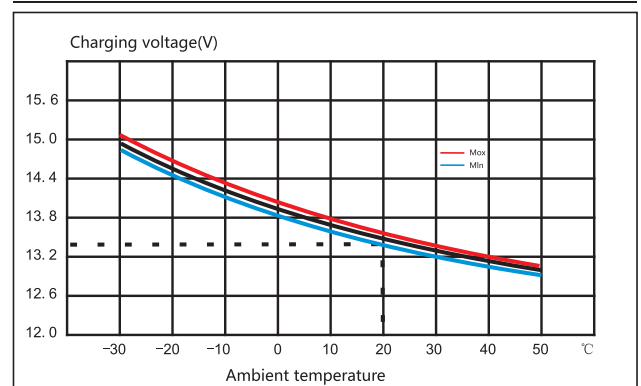
Curves of cycle life



Curves of self-discharge and storage time



Curves of float voltage and ambient temperature



## Charging procedures

Application type	Charge Voltage(V)			Max charge current (A)
	Temp (°C)	Set point	Temperature compensation	
Cycle use	25	14.4	-5mV/°C/cell	0.25C
Float use	25	13.65	-3mV/°C/cell	

## The relationship between discharge current and voltage

Discharge rate	1hr	3hr	8hr	10hr
End voltage (V)	10.5	10.8	10.8	10.8
Discharge current (A)	0.55C	0.25C	0.12C	0.1C

