

DEEP CYCLE GEL BATTERY

MG65-12

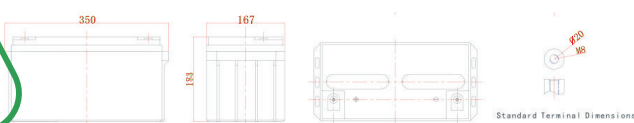


Application

- 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	65Ah
Design life	10 years
Terminal	T12
Approx. Weight	Approx 21.1Kg (46.51lbs)
Container Material	ABS
Rated Capacity	62.1Ah 10Hour Rate (6.21A to 10.8V)
	44.7Ah 3Hour Rate (14.9A to 10.8V)
	34.2Ah 1Hour Rate (34.2A to 10.5V)
Internal resistance	Full charged at 25°C: 7.3 Ohm
Max. Discharge Current	780A(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: 26A
	Cycle use: 14.4-15.0V(-30mV/ °C)
	Float use : 13.5-13.8V(-20mV/ °C)
Self discharge	3% of capacity declined per month at 20°C
Unit: mm Dimension: 350(L)×167(W) ×180(H)×183(TH)	



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

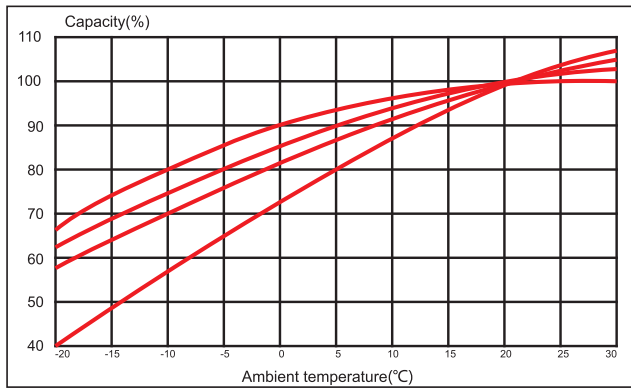
F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	114.0	87.6	75.5	65.6	50.8	37.8	30.6	18.5	14.2	11.78	10.04	8.79	7.11	5.98	3.20
1.80V/cell	142.7	102.5	85.9	73.8	55.7	40.8	32.7	19.7	14.9	12.34	10.47	9.16	7.40	6.21	3.25
1.75V/cell	160.9	111.8	93.8	79.0	58.7	42.8	34.2	20.4	15.3	12.65	10.72	9.35	7.51	6.27	3.29
1.70V/cell	177.1	120.7	100.1	82.9	61.4	44.3	35.6	21.1	15.8	12.96	10.97	9.53	7.62	6.33	3.32
1.65V/cell	193.8	130.0	105.1	86.1	63.3	45.8	36.6	21.6	16.2	13.23	11.18	9.70	7.73	6.40	3.37
1.60V/cell	210.1	138.2	109.3	89.4	65.0	47.4	37.5	22.1	16.6	13.49	11.38	9.84	7.83	6.48	3.38

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

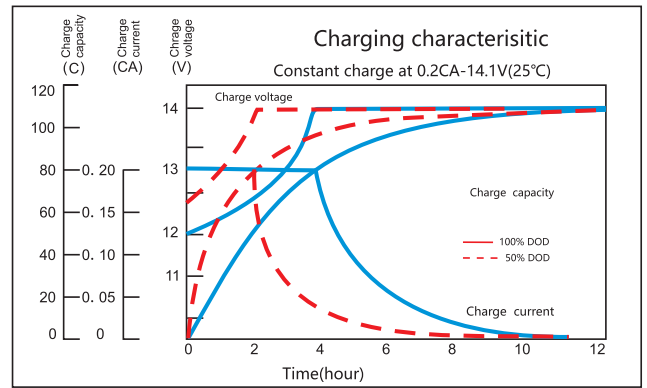
F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	208.5	161.7	140.9	123.6	96.8	72.7	59.1	35.9	27.7	23.0	19.7	17.28	14.04	11.83	6.34
1.80V/cell	258.1	187.0	158.1	137.0	104.6	77.9	62.8	37.9	29.0	24.0	20.4	17.93	14.56	12.27	6.43
1.75V/cell	284.8	200.8	170.5	145.3	109.3	80.9	65.3	39.3	29.6	24.5	20.9	18.24	14.74	12.38	6.50
1.70V/cell	304.9	211.9	179.5	151.4	113.6	83.4	67.7	40.4	30.4	25.1	21.3	18.58	14.94	12.49	6.56
1.65V/cell	328.8	226.2	186.9	156.0	116.3	85.4	69.1	41.2	31.1	25.5	21.6	18.84	15.13	12.61	6.64
1.60V/cell	348.4	235.0	191.2	160.3	118.4	87.9	70.5	41.9	31.6	25.9	21.9	19.07	15.30	12.74	6.66

Model Performance Diagrams

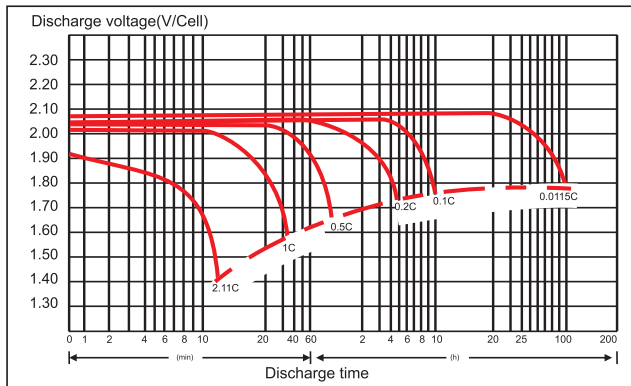
Curves of discharge capacity and ambient temperature



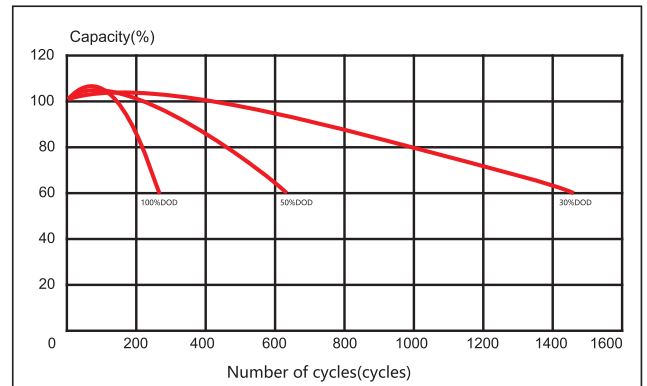
Curves of charging characteristics



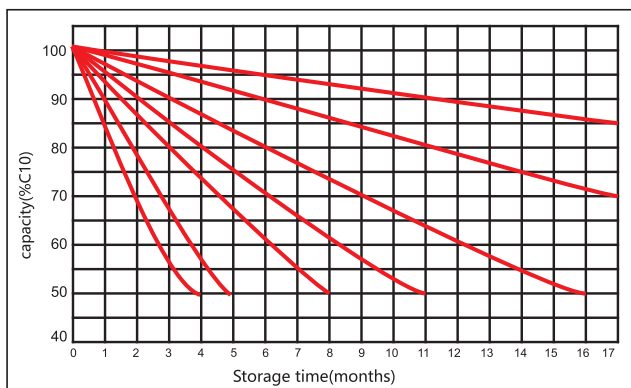
Discharge characteristics at different discharge rate(20°C)



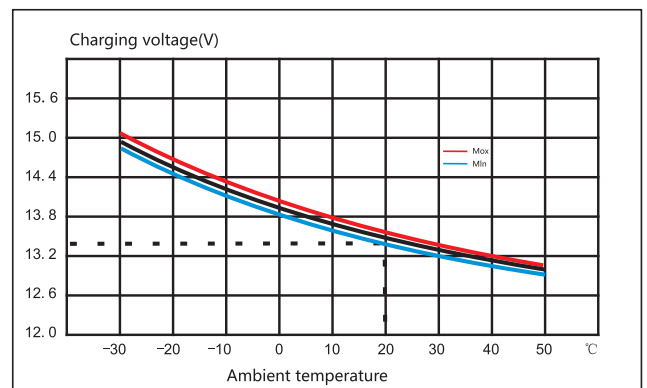
Curves of cycle life



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	0.4C
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

