

MK12-100 12V100Ah (10hr)



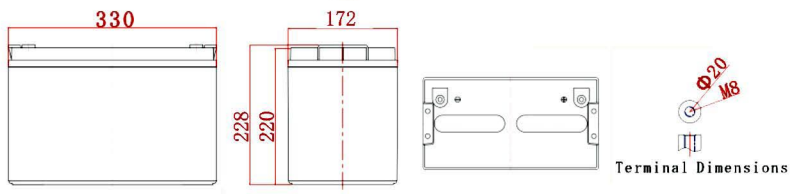
Specification

Nominal Voltage	12V
Nominal Capacity	100Ah
Design life	10 years
Terminal	T13
Approx. Weight	Approx 29.5kg (65.04lbs)
Container Material	ABS
Rated Capacity	104.0Ah 20Hour Rate (5.20A to 10.8V)
	100.0Ah 10Hour Rate (10.0A to 10.8V)
	76.2Ah 3Hour Rate (25.4A to 10.5V)
Internal resistance	Full charged at 25°C: 4.9 Ohm
Max. Discharge Current	1200A(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: 40A
	Cycle use: 14.4-14.9V(-30mV/ °C)
	Float use: 13.5-13.8V(-20mV/ °C)
Self discharge	3% of capacity declined per month at 20°C

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

Unit: mm Dimension: 330(L)×172(W)×220(H)×228(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	173.6	146.4	130.2	115.3	87.5	65.2	52.4	31.3	23.5	19.2	16.4	14.4	11.6	9.65	5.13
1.80V/cell	210.0	167.6	143.7	123.5	92.1	68.7	55.1	33.1	24.6	20.2	17.2	15.0	12.0	10.0	5.20
1.75V/cell	237.0	186.3	154.0	130.8	96.5	71.3	57.1	34.4	25.4	20.7	17.6	15.3	12.2	10.1	5.29
1.70V/cell	261.6	199.5	165.1	138.9	101.8	74.6	59.5	35.3	26.0	21.2	17.9	15.6	12.4	10.2	5.34
1.65V/cell	291.7	215.1	178.5	146.6	106.7	77.4	61.9	36.3	26.7	21.7	18.3	15.9	12.6	10.3	5.40
1.60V/cell	330.8	232.5	188.5	154.3	112.3	80.5	63.8	37.5	27.6	22.2	18.6	16.2	12.7	10.5	5.45

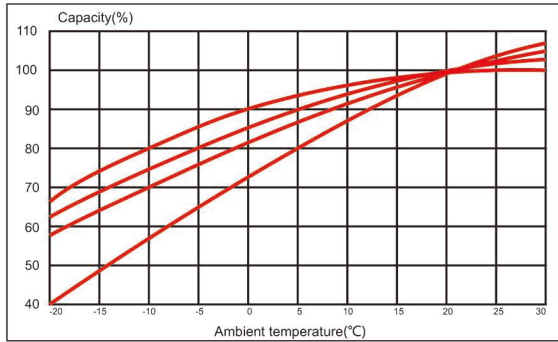
Constant Power Discharge (W/cell) at 25 °C (77 F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	322.5	274.9	247.1	220.5	168.5	126.4	102.2	60.8	45.7	37.5	32.2	28.2	22.9	19.1	10.2
1.80V/cell	386.4	312.2	271.0	235.1	176.8	132.7	107.2	63.8	47.7	39.2	33.6	29.4	23.7	19.8	10.3
1.75V/cell	431.3	344.9	288.7	247.8	184.3	137.3	110.8	66.0	49.1	40.1	34.3	29.9	24.0	19.9	10.4
1.70V/cell	470.9	366.5	307.7	261.8	193.6	143.0	115.0	67.6	50.1	41.0	34.8	30.4	24.3	20.1	10.5
1.65V/cell	519.3	391.4	330.2	274.5	201.9	147.7	119.1	69.2	51.3	41.8	35.3	30.8	24.6	20.3	10.6
1.60V/cell	578.9	418.2	345.1	286.6	211.1	152.9	122.4	71.1	52.7	42.6	35.9	31.3	24.8	20.5	10.7

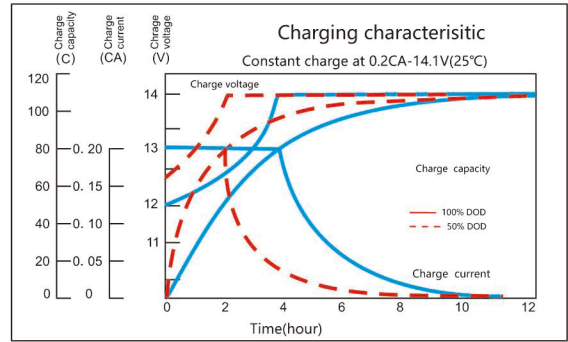
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Model Performance Diagrams

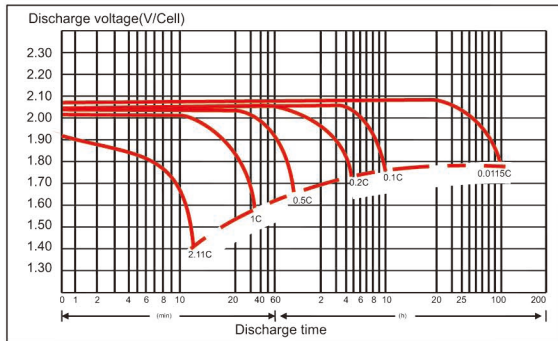
Curves of discharge capacity and ambient temperature



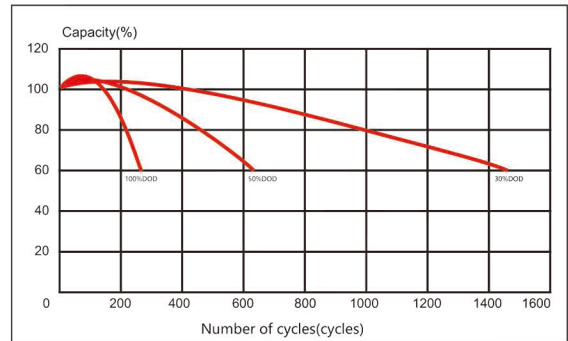
Curves of charging characteristics



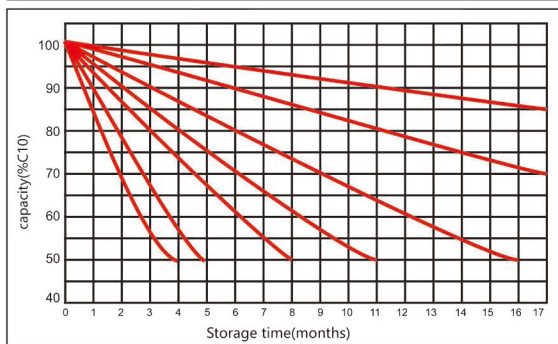
Discharge characteristics at different discharge rate(20°C)



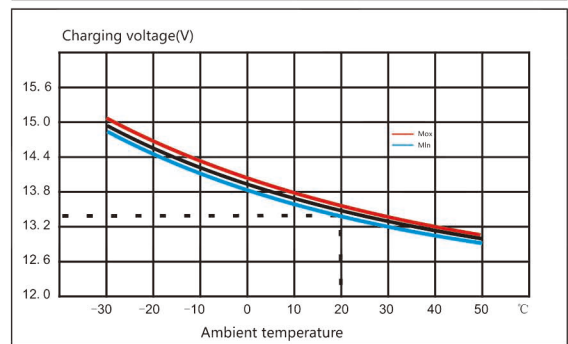
Curves of cycle life



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	0.3C
Float use	25	13.65	-3mV/°C/cell	

The relationship between discharge current and voltage				
Discharge rate	1hr	3hr	10hr	20hr
End voltage (V)	9.6	10.5	10.8	10.8
Discharge current (A)	0.55C	0.25C	0.1C	0.05C

