RNG-BATT-AGM12-100 (12V 100AH/10HR)

Absorbent Glass Mat (AGM) Specifications

Renogy AGM batteries are capable of delivering high currents on demand and offer long service life with very low self-discharge. They are designed for frequent and cyclic discharge. Valve regulated, spill proof construction allows safe operation in any position. They are suitable for various applications including electric vehicles, solar/wind energy system, UPS battery backup, telecommunication systems, medical equipment, and more.

Specifications

Electrical Characteristics	Nominal Voltage		12V
	Rated Capacity (0.2C)		100Ah
	Energy		1200Wh
	Internal Resistance		4.9 Ω at 25℃
Standard Charge	Charge Voltage		Cycle use: 14.4-15V Float use:13.5-13.8V
	Maximum Charge Current		40A
Standard Discharge	Maximum Discharge Current		1200A(5S)
	Self Discharge		3% of capacity declined per month at 20℃
Rated Capacity	20 Hour Rate (5.20A to 10.8V)		104.0Ah
	10 Hour Rate (10.0A to 10.8V)		100.0Ah
	3 Hour Rate (25.4A to 10.5V)		76.2Ah
Temperature Parameters	Operation Temperature Range	Charge	0～40℃（32～104° F）
		Discharge	-15～50℃ （5～122° F）
	Storage Temperature Range	-15～40℃ （5～104° F）	
Mechanical Properties	Dimensions	Length	330mm (13.0in)
		Width	172mm (6.8in)
		Height	228mm (9.0in)

	Weight	30kg (66.14lbs)
	Housing Material	ABS
	Terminal Model	T13

Discharge Charts

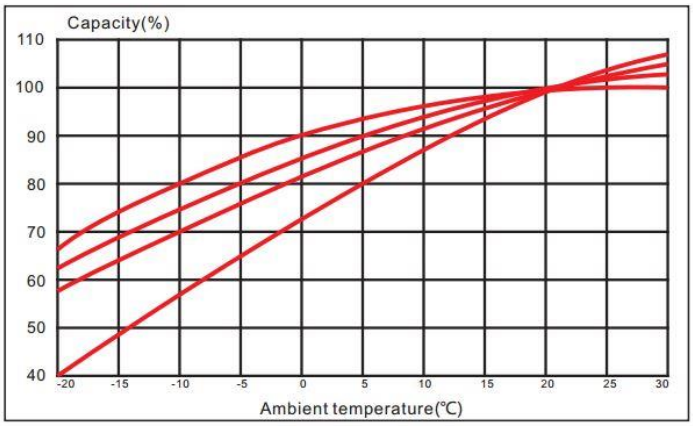
Constant Current Discharge (Amperes) at 25

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

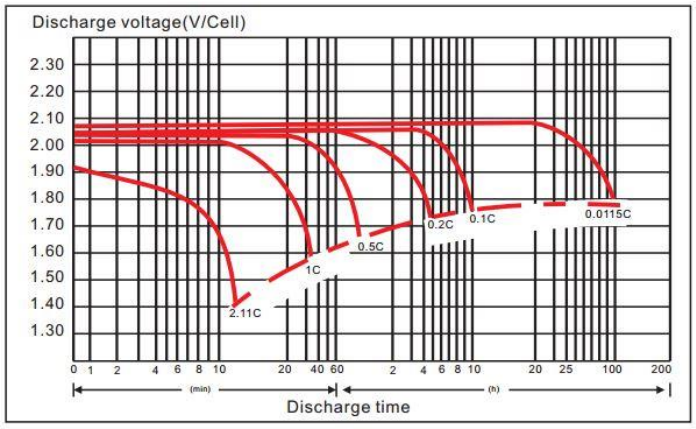
Constant Current Discharge (Watts) at 25

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

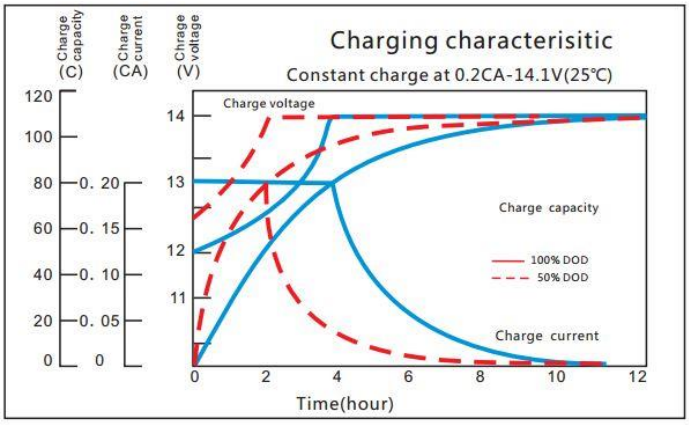
Curve of Discharge Capacity vs. Ambient Temperature



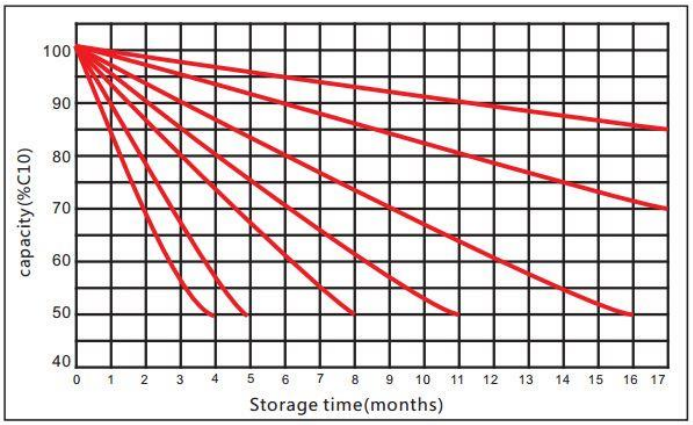
Discharge Characteristics at Different Discharge Rates (20)



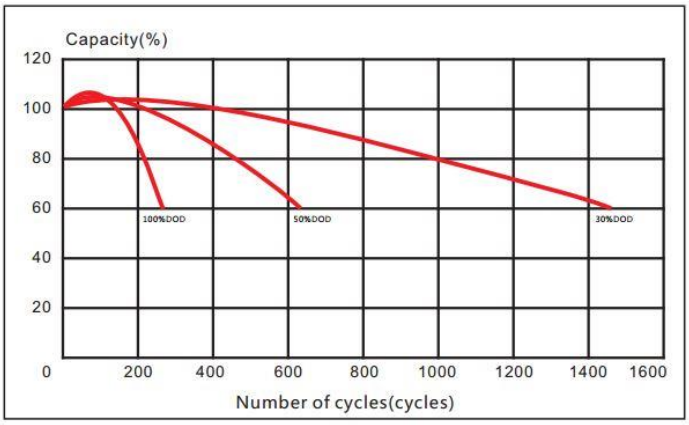
Charging Characteristics



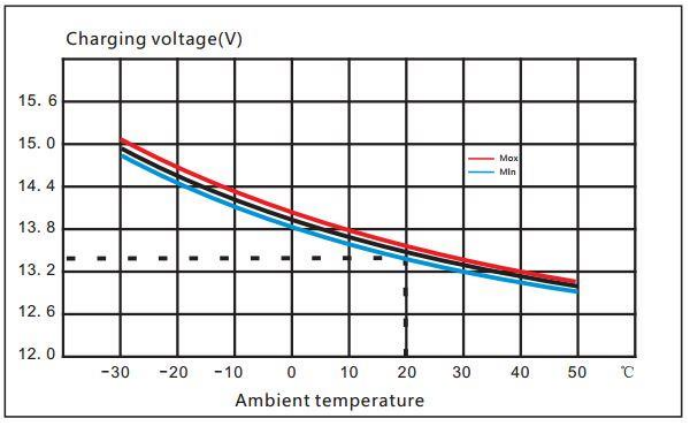
Self-Discharge vs Storage Time



Curves of Cycle Life



Float Voltage vs Ambient Temperature



Maintenance and Cautions

- Avoid over-discharging batteries, especially when they are in series connections
- Charge the batteries with recommended voltages, ensure the battery can be fully charged
- Generally, recharge capacity should be 1.1 ~ 1.5 * the discharge capacity
- The effect of temperature on cycle charge voltage: -4 mV / °C / Cell
- Length of cycle services is significantly affected by depth for discharge (primarily), along with ambient temperature, discharge rate, and the way the battery is recharged.