CB12-210 (12V210Ah)

Centennial AGM batteries are a perfect representation of stable quality and high reliability batteries. Centennial's AGM sealed construction allows for the battery to provide long life cycles. At the same time, being a maintenance-free product with a low pressure venting system, makes it perfect in standby applications. The ability to deliver high currents without significant drops in voltage is what makes Centennial competitively exclusive in guaranteeing customer satisfaction.

CENTENNIAL AGM BATTERIES

Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	195Ah@10hr-rate to 1.80V per cell @25℃ 210Ah@20hr-rate to 1.75V per cell @25℃
Weight	Approx. 61.5Kg/135.58 Lbs (Tolerance±2%)
Max. Discharge Current	1950 A (5 sec)
Internal Resistance	Approx. 4.0 mΩ
Operating Temperature Range	Discharge: -20℃~60℃ Charge: 0℃~50℃ Storage: -20℃~60℃
Reserve Capacity	455min@25A to 1.75V/Cell(25℃) 105min@75A to 1.75V/Cell(25℃)
Cranking Ampere(CA)	1150A
Cold Cranking Ampere(CCA)	790A
Float charging Voltage	13.6 to 13.8 VDC/unit Average at 25℃
Recommended Maximum Charging Current Limit	58.5 A
Equalization and Cycle Service	14.6 to 14.8 VDC/unit Average at 25℃
Self Discharge	CB Valve Regulated Lead Acid (VRLA) batteries can be stored for more than 6 months at 25℃. Self-discharge ratio less than 3% per month at 25℃. Please charge batteries before using.
Terminal	Terminal L6
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.

MH60419

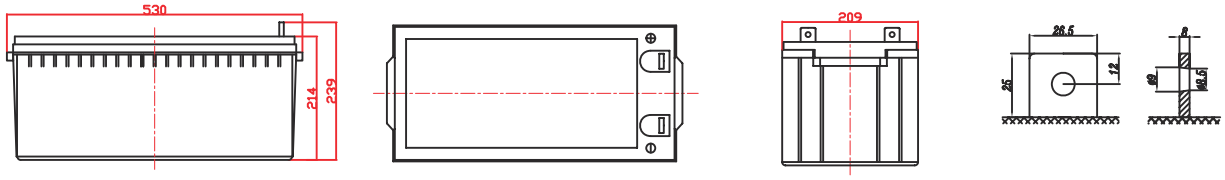
G4M20206-0910-E-16

IQNet CERTIFICATE ISO 14001:2004 Standard

IQNet CERTIFICATE OHSAS 18001:1999 Standard

Dimensions

Unit: mm Dimension: 530(L) ×209(W) ×214(H) ×239(H) (mm)/ 20.87(L) ×8.23(W) ×8.43(H)×9.41(TH) (inch)



Constant Current Discharge Characteristics: A (25℃)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	588.1	439.2	336.1	195.9	121.7	75.15	51.07	41.18	34.18	22.51	20.29	10.87
10.0V	571.1	417.9	329.2	193.4	120.1	73.63	50.12	40.59	33.88	22.43	20.09	10.76
10.2V	554.2	403.1	324.0	190.5	119.0	72.85	49.68	40.19	33.65	22.22	19.89	10.63
10.5V	497.6	372.0	308.5	185.2	117.5	71.90	49.24	39.59	33.38	22.02	19.70	10.51
10.8V	449.1	339.2	284.4	179.1	115.9	71.31	48.66	38.24	33.21	21.94	19.52	10.34
11.1V	383.5	303.1	255.1	172.3	113.1	68.44	47.71	37.69	32.97	21.76	19.29	9.931

Constant Power Discharge Characteristics: W(25℃)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	6083	4677	3697	2243	1410	880.6	601.2	492.9	409.5	269.6	243.3	130.2
10.0V	5963	4534	3637	2219	1398	869.9	592.3	485.9	405.8	268.6	241.4	128.3
10.2V	5895	4414	3596	2200	1389	863.7	589.7	481.4	403.4	266.5	239.3	125.6
10.5V	5366	4110	3430	2155	1380	852.7	584.9	474.9	400.1	264.3	236.9	123.7
10.8V	4888	3789	3171	2104	1363	846.4	578.3	458.9	398.3	263.1	234.6	122.8
11.1V	4293	3426	2854	2046	1342	814.7	568.6	452.3	396.9	261.3	232.0	117.9

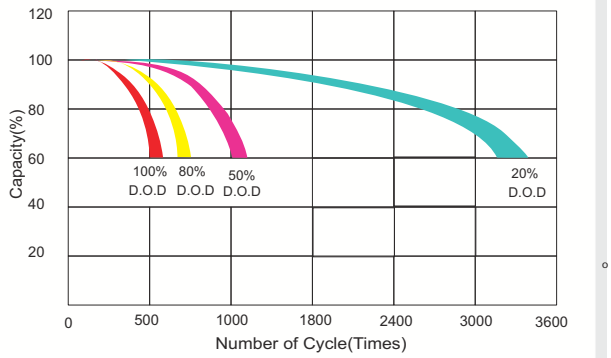
All mentioned values are average values (Tolerance ±2%).

CENTENNIAL AGM BATTERIES

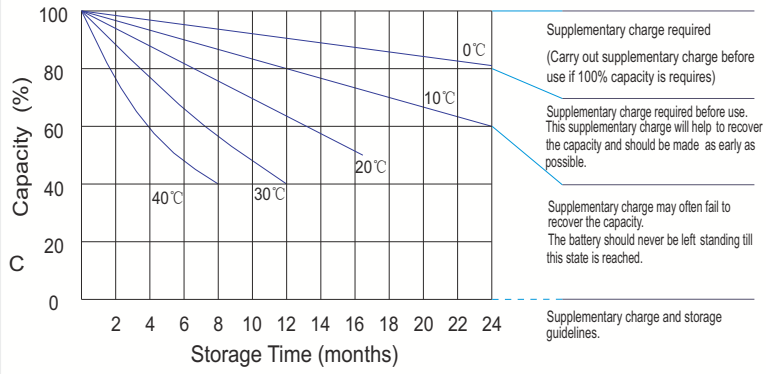
CB12-210

(12V210Ah)

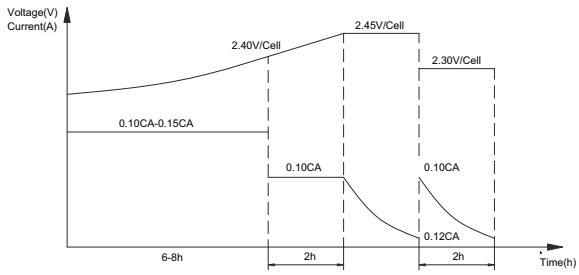
Life characteristics of cyclic use (Based on testing @2hr)



Storage characteristic



Charge characteristic Curve for cyclic use



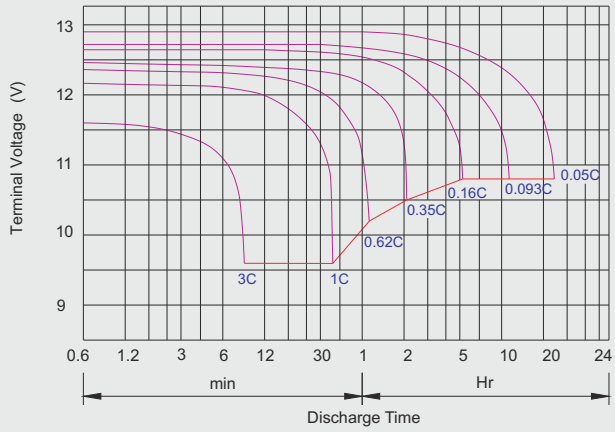
Stage 1: 0.15CA constant current to 2.40V/cell(max. 8h)

Stage 2: 0.1CA constant current to 2.45V/cell (max. 2h)

Stage 3: 0.1CA*2.45V/cell constant voltage to 0.012CA

Stage 4: 0.1CA*2.30V/cell*2h

Discharge characteristic Curve



Capacity Factors With Different Temperature

Battery Type		-20℃	-10℃	0℃	5℃	10℃	20℃	25℃	30℃	40℃	45℃
GEL Battery	6V&12V	50%	70%	83%	85%	90%	98%	100%	102%	104%	105%
	2V	60%	75%	85%	88%	92%	99%	100%	103%	105%	106%
AGM Battery	6V&12V	46%	66%	76%	83%	90%	98%	100%	103%	107%	109%
	2V	55%	70%	80%	85%	92%	99%	100%	104%	108%	110%

Discharge Current VS. Discharge Voltage

Final D ischarge Voltage V /cell	1.75V	1.70V	1.60V
Discharge Current (A)	（A）≤0.2C	0.2C＜（A）＜1.0C	（A）≥1.0C

Charge the batteries at least once every six months, if they are stored at 25℃.

Charging Method:

Constant Voltage	-0.2Cx2h+2.4-2.45V/cellx24h,Max. Current 0.3C
Constant Current	-0.2Cx2h+0.1Cx12h
Fast	-0.2Cx2h+0.3Cx4h

Bolt	M5	M6	M8
Terminal	F3 F4 F13 F18 T25 T26	F8 F11 F12-1 F15	F5 F9 F10 F12 F14 F16
Torque	6~7N-m	8~10N-m	10~12N-m

Maintenance & Cautions

Cycle Service

▶Avoid battery overcharge, especially in series connection use.

▶Charge with recommended voltage.Ensure battery fully recharges. In general, recharge capacity should be 1.1-1.15 times discharge capacity.

▶Effect of temperature on cycle charge voltage:-4mV/°C/Cell

▶The length of cycle service will be affected by depth of discharge, ambient temperature discharge rate, and the manner in which the battery is recharged. Generally speaking, the most important factor is depth of discharge.

Float Service:

▶Every month, recommend inspection of every battery's voltage.

▶Every three months, recommend a one time equalization charge.

Equalization charge method:

Discharge-100% rate capacity discharge.

Charge-Max current 0.3C, constant voltage 2.4-2.45V/Cell charge 24h.

▶Effect of temperature on float charge voltage: -3mV/℃/Cell.

▶Length of service life will be affected by the number of discharge cycles depth of discharge, ambient temperature,and charging voltage.