CENTENNIAL™ AGM BATTERIES

CB12-55(12V55Ah)

Specification

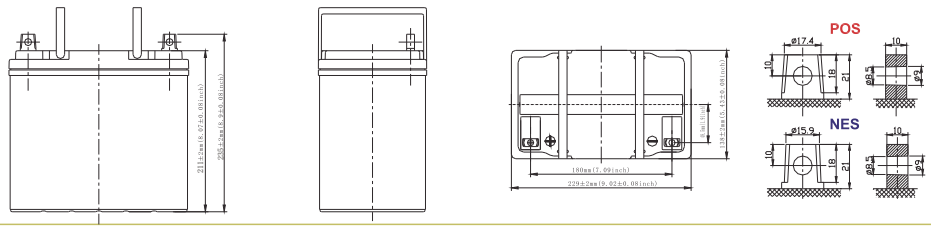
Cells Per Unit	6
Voltage Per Unit	12
Capacity	55Ah@10hr-rate to 1.80V per cell @25℃
Weight	Approx. 18.0 Kg/39.69Lbs (Tolerance±3%)
Internal Resistance	Approx. 7.0 mΩ
Terminal	L3
Max. Discharge Current	550A (5 sec)
Maximum Charging Current	16.5A
Reserve Capacity	84min@25A to 1.75V/Cell(25℃) 20min@75A to 1.75V/Cell(25℃)
Reference Capacity	C10 55.0AH C20 57.2AH
Float Charging Voltage	13.6 V~13.8 V @ 25℃ Temperature Compensation: -3mV/℃/Cell
Cycle Use Voltage	14.6 V~14.8 V @ 25℃ Temperature Compensation: -4mV/℃/Cell
Operating Temperature Range	Discharge: -20℃~60℃ Charge: 0℃~50℃ Storage: -20℃~60℃
Normal Operating Temperature Range	25℃±5℃
Self Discharge	RITAR Valve Regulated Lead Acid (VRLA) batteries can be stored for up to 6 months at 25℃ and then recharging is recommended. Monthly Self-discharge ratio is less than 3% at 25℃.Please charged batteries before using.
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.

The series is a general purpose battery with 12 years design life in float service. It meets with IEC, JIS, BS and YDT standards. With advanced AGM valve regulated technology and high purity raw material, the series battery maintains high consistency for better performance and reliable standby service life. It is suitable for UPS/EPS, Telecom, power grid, medical equipment, emergency light and security system applications.

ISO 9001 ISO 14001 OHSAS 18001

MH 60419 G4M20206-0910-E-16

Dimensions



Length	229±2mm (9.02 inches)
Width	138±2mm (5.43 inches)
Height	211±2mm (8.31 inches)
Total Height	235±2mm (9.25 inches)
Terminal	Value
M5	6~7 N*m
M6	8~10 N*m
M8	10~12 N*m

Unit: mm

Constant Current Discharge Characteristics : A(25℃)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	192.6	141.8	105.8	55.26	34.33	21.20	14.40	11.61	9.64	6.350	5.720	3.030
10.0V	187.0	134.9	103.6	54.55	33.87	20.77	14.14	11.45	9.56	6.330	5.670	2.970
10.2V	181.5	130.1	102.0	53.72	33.55	20.55	14.01	11.34	9.49	6.270	5.610	2.920
10.5V	162.9	120.1	97.09	52.24	33.14	20.28	13.89	11.17	9.41	6.210	5.560	2.860
10.8V	147.1	109.5	89.50	50.51	32.68	20.11	13.73	10.79	9.37	6.190	5.500	2.830
11.1V	125.6	97.90	80.28	48.59	31.90	19.30	13.46	10.63	9.30	6.140	5.440	2.720

Constant Power Discharge Characteristics : W(25℃)

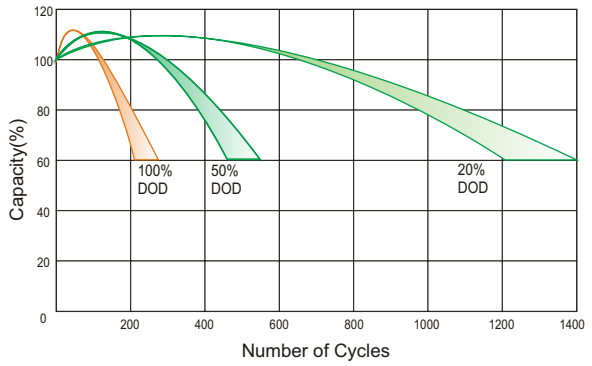
F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	2032	1510	1153	632.6	397.8	248.4	169.6	139.0	115.5	76.04	68.63	36.50
10.0V	1992	1464	1135	626.0	394.2	245.3	167.1	137.1	114.5	75.75	68.09	35.86
10.2V	1969	1425	1122	620.6	391.9	243.6	166.3	135.8	113.8	75.18	67.49	35.20
10.5V	1792	1327	1070	607.9	389.4	240.5	165.0	133.9	112.9	74.54	66.82	34.54
10.8V	1633	1223	989.0	593.5	384.4	238.7	163.1	129.4	112.3	74.22	66.16	34.20
11.1V	1434	1106	890.3	577.2	378.6	229.8	160.4	127.6	111.9	73.70	65.44	32.98

(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values.

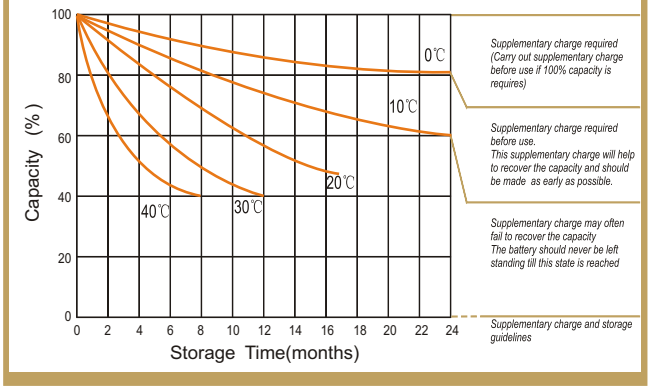
CENTENNIAL AGM BATTERIES

CB12-55(12V55Ah)

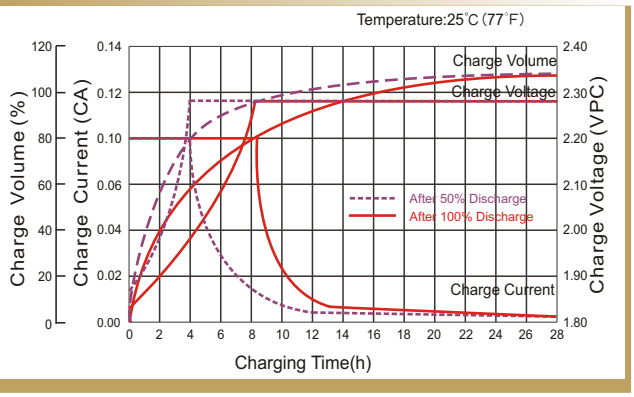
Cycle Life in Relation to Depth of Discharge



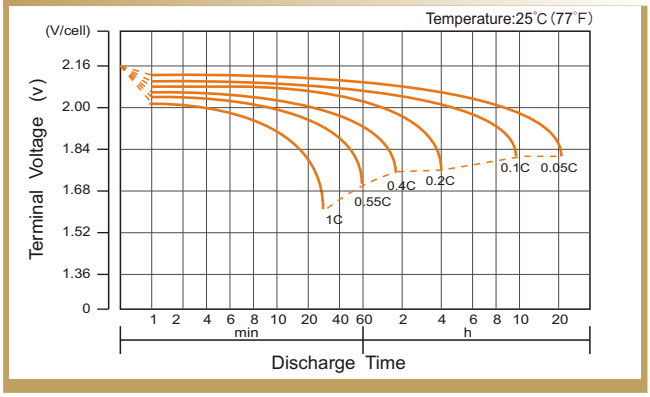
Storage Characteristics



Charge Characteristic Curve For Standby Use(IU)



Discharge Characteristics Curve



CHARGE VOLTAGES

	Battery Voltage			
Charge Stage	**12V**	**24V**	**36V**	**48V**
Bulk	14.6	29.2	43.8	58.4
Absorption	14.6	29.2	43.8	58.4
Float	13.6	27.2	40.8	54.4
TC Factor:(-3mV℃/cell） or （-4mV℃/cell）				

Capacity Factors With Different Temperature

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

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