



US AGM 31

- **DEEP CYCLE AGM**

- BCI Group 31, 12V
- Reserve Capacity [Ah@20hr rate]: 117
- Reserve Capacity [Ah@100hr rate]: 122
- Energy [kWh]: 1.46
- Weight: 67 lbs.
- Length: 12.9 in (328 mm)
- Width: 6.77 in (172 mm)
- Height: 8.66 in (220 mm)
- F12



All of U.S. Battery's AGM Batteries feature the latest and most advanced paste and plate making technologies available.

Premium U.S. Battery's AGM Batteries are Sealed and Maintenance Free. They are Spill Proof, will not leak, and can withstand most freezing temperatures.

U.S. Battery's AGM products offer several advantages over both conventional flooded and GEL lead acid battery types. Since the acid (electrolyte) is absorbed in glass-mats (AGM) surrounding the plates, they will not spill if broken. In addition, since there is no free liquid to cause damage if frozen, our AGM Batteries are rarely damaged by freezing temperatures. Heat generation is reduced during the charge and discharge cycle, providing you longer and more reliable life cycles. All of U.S. Battery's AGM products have very low self discharge rates allowing our batteries to be stored for longer periods of time without the need to boost charge as often.

Hydrogen gas emission is less than 4%, allowing U.S. Battery's AGM products to be used in aircraft applications and in areas with enclosed spaces (but not in sealed or gas-tight containers) U.S. Battery's AGM 2000 plates are constructed and rigidly mounted while tightly packed to withstand shock and vibration found in many motive power applications giving you years of Reliable, Dependable and Maintenance Free usage.





DATA SHEET

MODEL **US AGM 31**

VOLTAGE **12V**

CAPACITY **117Ah @ 20Hr**

MATERIAL **Polypropylene / Heat Sealed**

BATTERY TYPE **Sealed Non Spillable Lead Acid (AGM)**

12V

PRODUCT + PHYSICAL SPECIFICATIONS

BCI Group Size	Type	Voltage	Cell(s)	Terminal Type ^G	Dimensions ^C Inches (mm)			Weight Lbs. (kg)
31	US AGM 31	12	6	F12	Length	Width	Height ^F	67 (30.5)
					12.9 (328)	6.77 (172)	8.66 (220)	

ELECTRICAL SPECIFICATIONS

Cranking Performance		Capacity ^A Minutes			Amp-Hr								
C.C.A. ^D @ 0°F (-18° C)	C.A. ^E @ 32°F (0°C)	@ 25 Amps	@ 56 Amps	@ 75 Amps	1-Hr	2-Hr	5-Hr	6-Hr	10-Hr	20-Hr	48-Hr	72-Hr	100-Hr
—	—	207	68	45	61	74	96	101	104	117	120	121	122

CHARGING INSTRUCTIONS

Recommended Charge Current

-With Temperature Compensation
-Without Temperature Compensation
Charge Voltage (12 Volts)
Charge Voltage Temp.
Compensation

Cyclic Application

25 Amps Max.
8-12 Amps
14.4- 15 volts
-0.017 V/F°
-0.030 V/C°

Float Application

25 Amps Max.
8-12 Amps
13.2-13.6 volts
-0.017 V/F°
-0.030 V/C°

Do not charge at temperature corrected voltages above 7.5 volts (2.5 volts/cell).

Use of a voltage controlled charger is a requirement for warranty coverage.

For best cycle life, limit discharge to less than 50% of the battery's 20 hour capacity.

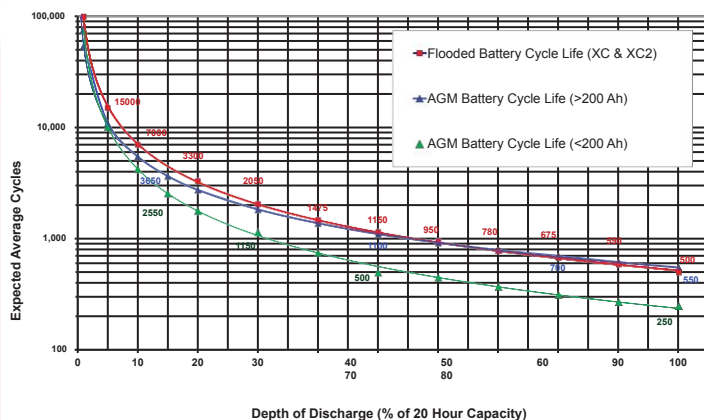
Deep cycle batteries need to be equalized periodically. Equalizing is an extended, low current charge performed after the normal charge cycle. This extra charge helps keep all cells in balance. Actively used batteries should be equalized once per month. Manually timed chargers should have the charge time extended approximately 3 hours.

Automatically controlled chargers should be unplugged and reconnected after completing a charge.



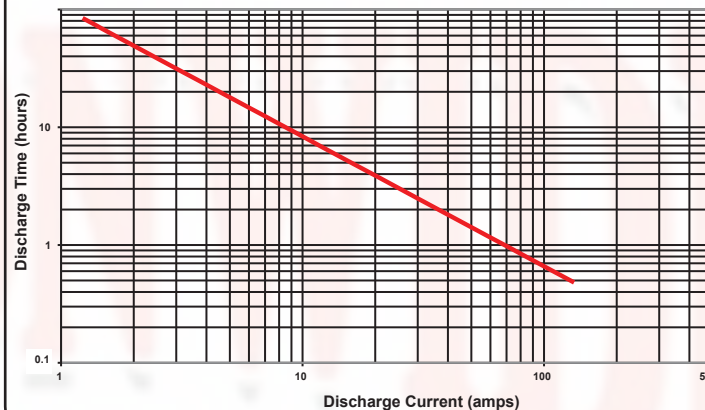
USAGM 31 - DATA SHEET

EXPECTED LIFE CYCLES VS. DOD (XC, XC2 & AGM)

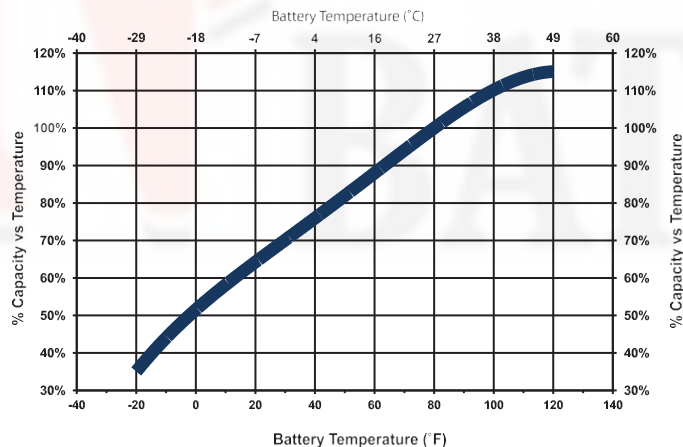


US AGM 31 DISCHARGE TIME VS CURRENT @80° F

Discharge Time vs Current @80° F



BATTERY % CAPACITY VS TEMP



U.S. Battery Operating Temperature Guidelines

For charging, we recommend staying within 0°F to 120°F (-18 to 49°C) to avoid charging frozen batteries at low temperature or going into thermal runaway at high temperature.

For discharging, we recommend -20°F to 120°F (-29 to 49°C). Batteries discharged at temperatures below 32°F (0°C) should be re-charged immediately to avoid freezing. Batteries discharged at temperatures above 120°F (49°C) should be allowed to cool before recharging.

Extreme temperatures can substantially affect battery performance and charging. Cold reduces battery capacity and retards charging. Heat increases water usage and can result in overcharging. Very high temperatures can cause "thermal run-away" which may lead to an explosion or fire. If extreme temperature is an unavoidable part of an application, consult a battery/charger specialist about ways to deal with the problem.

Battery temperature adjustment: Reduce the voltage by 0.028 per cell for every 10F above 80°F, increase by the same amount for temperatures below 80°F.

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