

MODEL **31-AGM**  
 VOLTAGE **12**  
 CAPACITY **100Ah @ 20Hr**  
 MATERIAL **Polypropylene**  
 BATTERY **VRLA AGM / Non-Spillable / Maintenance-Free**  
 COLOR **Maroon**  
 WATERING **No Watering Required**



## 12 VOLT

### PHYSICAL SPECIFICATIONS

BCI	MODEL NAME	TERMINAL TYPE <sup>G</sup>	DIMENSIONS <sup>E</sup> INCHES (mm)			WEIGHT <sup>I</sup> LBS. (kg)	HANDLES	INSTALLATION ORIENTATION
31	31-AGM	M8/DT	LENGTH	WIDTH	HEIGHT <sup>F</sup>	67 (30)	Plastic Handle	Horizontal and Vertical
			12.80 (325)	6.81 (173)	9.37 (238)			

### ELECTRICAL SPECIFICATIONS

VOLTAGE	Cranking Performance		Capacity <sup>A</sup> Minutes		CAPACITY <sup>B</sup> AMP-HOURS (Ah)				ENERGY (kWh)	INTERNAL RESISTANCE (mΩ)	SHORT CIRCUIT CURRENT (amps)
12	C.C.A. <sup>D</sup> @0°F	C.A. <sup>E</sup> @32°F	@ 25 Amps	@ 75 Amps	5-Hr	10-Hr	20-Hr	100-Hr	100-Hr	4.80	2555
	600	720	177	—	82	92	100	111	1.33		

### CHARGING INSTRUCTIONS

CHARGER VOLTAGE SETTINGS (AT 77°F/25°C)				
SYSTEM VOLTAGE	12V	24V	36V	48V
Maximum Charge Current (A)	20% of C <sub>20</sub>			
Absorption Voltage (2.40 V/cell)	14.40	28.80	43.20	57.60
Float Voltage (2.25 V/cell)	13.50	27.00	40.50	54.00
Do not install or charge batteries in a sealed or non-ventilated compartment. Constant under or overcharging will damage the battery and shorten its life as with any battery.				

### CHARGING TEMPERATURE COMPENSATION

ADD	SUBTRACT
0.005 volt per cell for every 1°C below 25°C 0.0028 volt per cell for every 1°F below 77°F	0.005 volt per cell for every 1°C above 25°C 0.0028 volt per cell for every 1°F above 77°F

### OPERATIONAL DATA

OPERATING TEMPERATURE	SELF DISCHARGE
-4°F to 122°F (-20°C to +50°C). At temperatures below 32°F (0°C) maintain a state of charge greater than 60%.	Less than 3% per month depending on storage temperature conditions

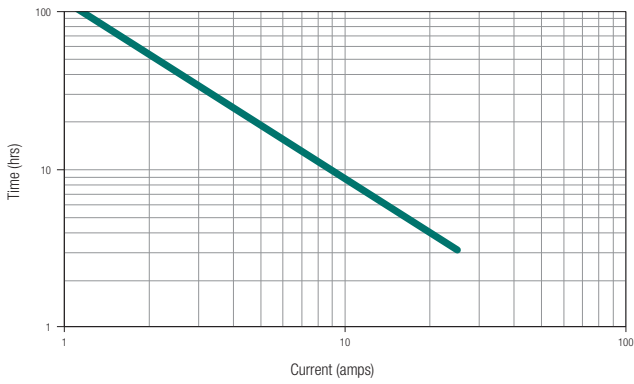
### RECYCLE RESPONSIBLY



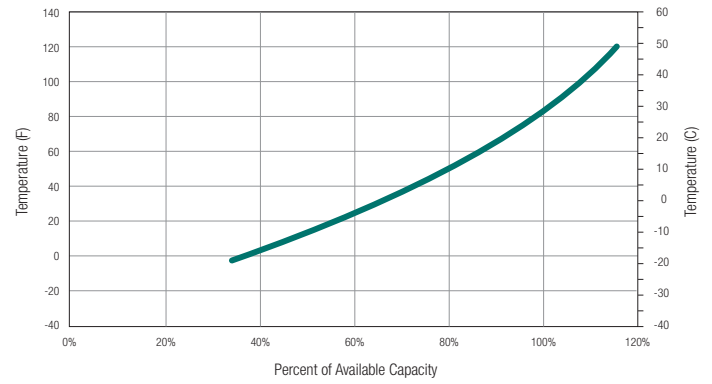
### STATE OF CHARGE MEASURE OF OPEN-CIRCUIT VOLTAGE

PERCENTAGE CHARGE	CELL	12 VOLT
100	2.14	12.84
75	2.09	12.54
50	2.04	12.24
25	1.99	11.94
0	1.94	11.64

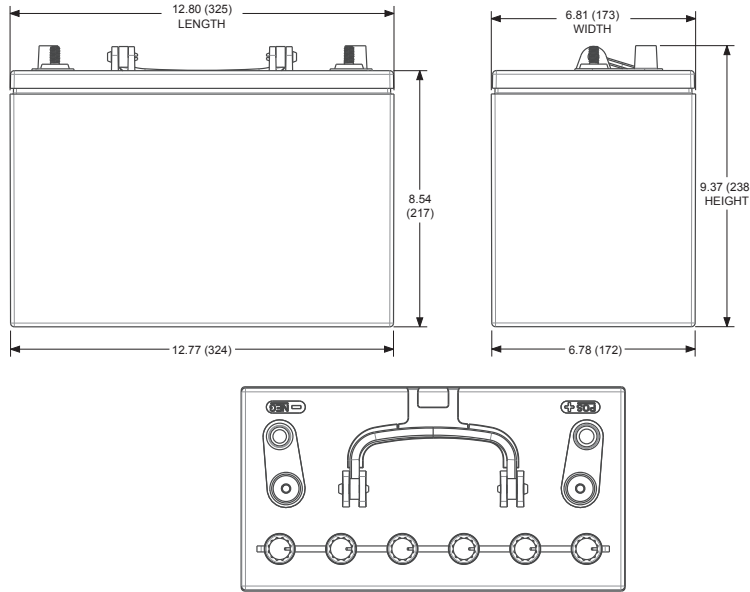
## TROJAN 31-AGM PERFORMANCE



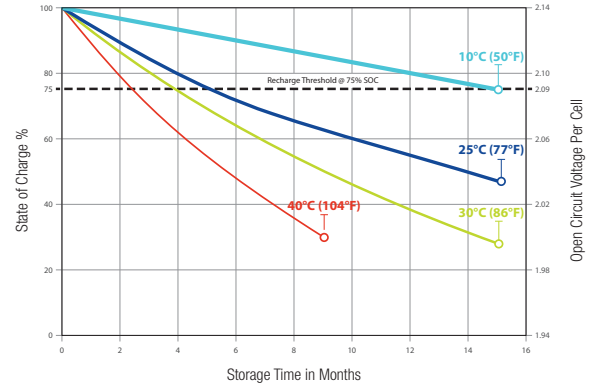
## PERCENT CAPACITY VS. TEMPERATURE




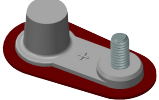
## BATTERY DIMENSIONS (shown with DT)



## SELF DISCHARGE VS. TIME<sup>H</sup>



## TERMINAL CONFIGURATIONS<sup>G</sup>

15	M8	M8	6	DT	AUTOMOTIVE POST & STUD
 <p><b>Battery Height with Terminal in Inches (mm)</b> 8.69 (221)</p> <p><b>Torque Values in-lb (Nm)</b> Bolt: 85 – 90 (10 – 11)</p>			 <p><b>Battery Height with Terminal in Inches (mm)</b> 9.37 (238)</p> <p><b>Torque Values in-lb (Nm)</b> Connected to Stud: 95 – 105 (11 – 12) Connected to AP: 50 – 70 (6 – 8)</p> <p><b>Bolt Size</b> 5/16" – 18</p>		

- A. The number of minutes a battery can deliver when discharged at a constant rate at 80°F (27°C) and maintain a voltage above 1.75 V/cell. Capacities are based on peak performance.
- B. The amount of amp-hours (Ah) a battery can deliver when discharged at a constant rate at 80°F (27°C) for the 20-Hour rate and 86°F (30°C) for the 5-Hour rate and maintain a voltage above 1.75 V/cell. Capacities are based on peak performance.
- C. Dimensions may vary depending on type of handle or terminal. Batteries should be mounted with 0.5 inches (12.7 mm) spacing minimum.
- D. C.C.A. (Cold Cranking Amps) - the discharge load in amperes which a new, fully charged battery can maintain for 30 seconds at 0°F (-18°C) at a voltage above 1.2 V/cell.

- E. C.A. (Cranking Amps) - the discharge load in amperes which a new, fully charged battery can maintain for 30 seconds at 32°F (0°C) at a voltage above 1.2 V/cell. This is sometimes referred to as marine cranking amps @ 32°F or M.C.A. @ 32°F.
- F. Height taken from bottom of the battery to the highest point on the battery. Heights may vary depending on type of terminal.
- G. Terminal images are representative only.
- H. A boost charge should be performed every 6 months when batteries are in storage.
- I. Weight may vary.



Designed in compliance with applicable BCI, DIN, BS and IEC standards.  
Tested in compliance to BCI and IEC standards.



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