

**MODEL:** 31AGM  
**DIMENSIONS:** inches (mm)  
**BATTERY:** VRLA AGM  
**COLOR:** Maroon (case/cover)  
**MATERIAL:** Polypropylene



## PRODUCT SPECIFICATIONS


| BCI GROUP SIZE                  | TYPE   | CAPACITY <sup>A</sup> Amp-Hours (AH) |           |            |            |            |            |             |             | ENERGY (kWh) | VOLTAGE | TERMINAL Type <sup>D</sup> | DIMENSIONS <sup>B</sup> Inches (mm) |              |                     | WEIGHT lbs. (kg) |
|---------------------------------|--------|--------------------------------------|-----------|------------|------------|------------|------------|-------------|-------------|--------------|---------|----------------------------|-------------------------------------|--------------|---------------------|------------------|
|                                 |        | 2-Hr Rate                            | 5-Hr Rate | 10-Hr Rate | 20-Hr Rate | 48-Hr Rate | 72-Hr Rate | 100-Hr Rate | 100-Hr Rate |              |         |                            | Length                              | Width        | Height <sup>C</sup> |                  |
| <b>DEEP-CYCLE AGM BATTERIES</b> |        |                                      |           |            |            |            |            |             |             |              |         |                            |                                     |              |                     |                  |
| 31                              | 31-AGM | 65                                   | 82        | 92         | 100        | 107        | 109        | 111         | 1.33        | 12 VOLT      | 6       | 12-15-16 (329)             | 6-13/16 (174)                       | 9-5/16 (237) | 69 (31)             |                  |

## CHARGING INSTRUCTIONS

| CHARGER VOLTAGE SETTINGS (AT 77°F/25°C) |             |             |             |             |
|---|-------------|-------------|-------------|-------------|
| System Voltage                          | 12V         | 24V         | 36V         | 48V         |
| Absorption Charge                       | 14.1 – 14.7 | 28.2 – 29.4 | 42.3 – 44.1 | 56.4 – 58.8 |
| Float Charge                            | 13.5        | 27          | 40.5        | 54          |

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.

## TERMINAL CONFIGURATIONS

| 6   | DT | Automotive Post & Stud Terminal |
|---|----|---------------------------------|
|  |    |                                 |
| <i>Terminal Height Inches (mm)</i><br>29/32 (20)                                      |    |                                 |
| <i>Torque Values in-lb (Nm)</i><br>Bolt: 95 – 105 (11 – 12)<br>AP: 50 – 70 (6 – 8)    |    |                                 |
| <i>Bolt Size</i><br>5/16 – 18   |    |                                 |

## CHARGING TEMPERATURE COMPENSATION

.028 VPC for every 10°F (5.55°C) above or below 77°F (25°C) (add .028 VPC for every 10°F (5.55°C) below 77°F and subtract .028 VPC for every 10°C above 77°F).

## EXPECTED LIFE VS. TEMPERATURE

Chemical reactions internal to the battery are driven by voltage and temperature. The higher the battery temperature, the faster chemical reactions will occur. While higher temperatures can provide improved discharge performance the increased rate of chemical reactions will result in a corresponding loss of battery life. As a rule of thumb, for every 10°C increase in temperature the reaction rate doubles. Thus, a month of operation at 35°C is equivalent in battery life to two months at 25°C. Heat is an enemy of all lead acid batteries, FLA, AGM and gel alike and even small increases in temperature will have a major influence on battery life.

## OPERATIONAL DATA

| Operating Temperature   | Self Discharge  |
|---|---|
| -4°F to 113°F (-20°C to +45°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. |

A. The amount of amp-hours (AH) a battery can deliver when discharged at a constant rate at 77°F (25°C) and maintain a voltage above 1.75 V/cell. Capacities are based on peak performance.

B. Dimensions are based on nominal size. Dimensions may vary depending on type of handle or terminal.

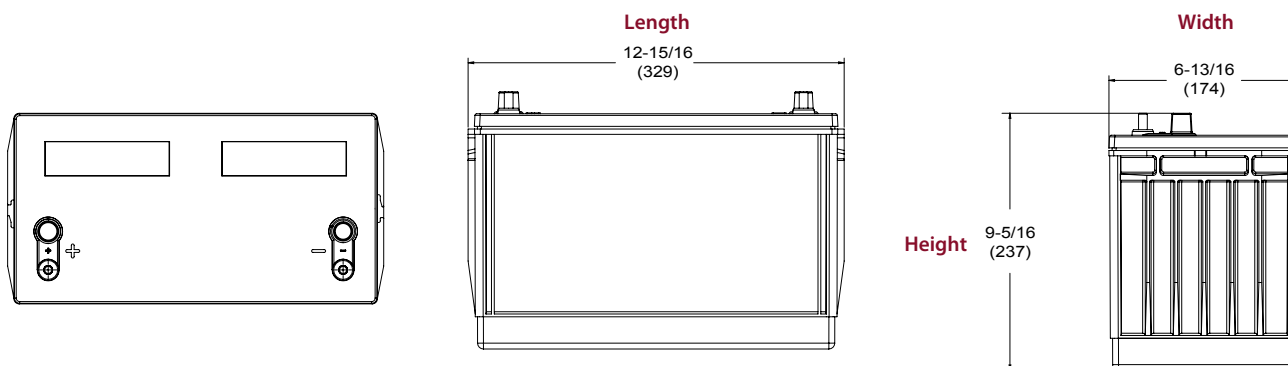
C. Dimensions taken from bottom of the battery to the highest point on the battery. Heights may vary depending on type of terminal.

D. Terminal images are representative only.

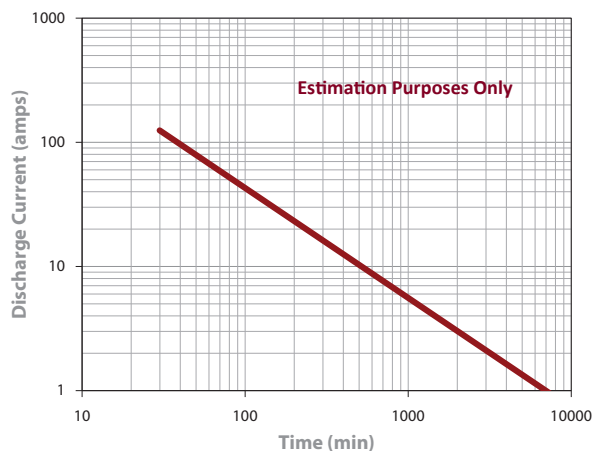
Trojan's Battery testing procedures adhere to both BCI and IEC test standards.

\*\* Additional Terminals Available

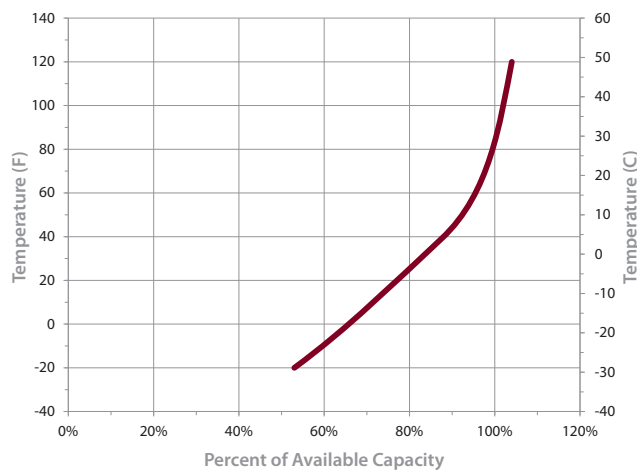
## BATTERY DIMENSIONS (shown with DT)



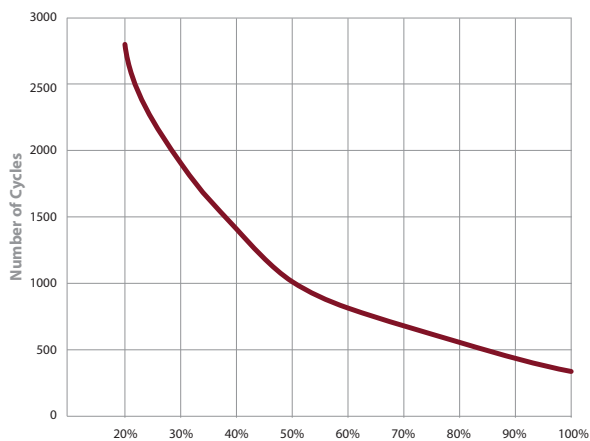
## TROJAN 31 AGM PERFORMANCE



## PERCENT CAPACITY VS. TEMPERATURE



## TYPICAL CYCLE LIFE IN A STATIONARY APPLICATION



Trojan batteries are available worldwide.  
 We offer outstanding technical support, provided by full-time application engineers.  
**call 800.423.6569 or + 1.562.236.3000 or visit [www.trojanbatteryRE.com](http://www.trojanbatteryRE.com)**  
 12380 Clark Street, Santa Fe Springs, CA 90670 • USA or email [re@trojanbattery.com](mailto:re@trojanbattery.com)