

MODEL **27-AES**  
 VOLTAGE **12**  
 CAPACITY **89Ah @ 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	DIMENSIONS ° INCHES (mm)			WEIGHT ° LBS. (kg)	HANDLES	INSTALLATION ORIENTATION
			LENGTH	WIDTH	HEIGHT ° F			
27	27-AES	6	12.05 (306)	6.84 (174)	9.32 (237)	64 (29)	Plastic Strap	Horizontal and Vertical

**ELECTRICAL SPECIFICATIONS**

VOLTAGE	CAPACITY ° MINUTES @ 25 Amps	CRANKING PERFORMANCE		CAPACITY ° AMP-HOURS (Ah)				ENERGY (kWh) 100-Hr	INTERNAL RESISTANCE (mΩ)	SHORT CIRCUIT CURRENT (amps)
		C.C.A. ° @0°F	C.A. ° @32°F	5-Hr	10-Hr	20-Hr	100-Hr			
12	158	495	594	77	82	89	99	1.19	-	-

**CHARGING INSTRUCTIONS**

CHARGER VOLTAGE SETTINGS (AT 77°F/25°C)				
SYSTEM VOLTAGE	12V	24V	36V	48V
Maximum Charge Current (A)	50% 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.

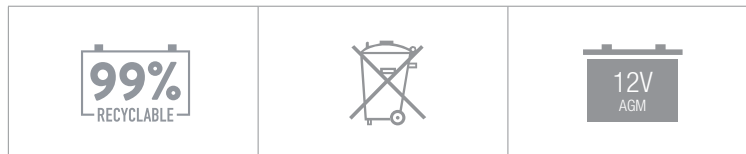
**CHARGING TEMPERATURE COMPENSATION**

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
-40°F to 140°F (-40°C to +60°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

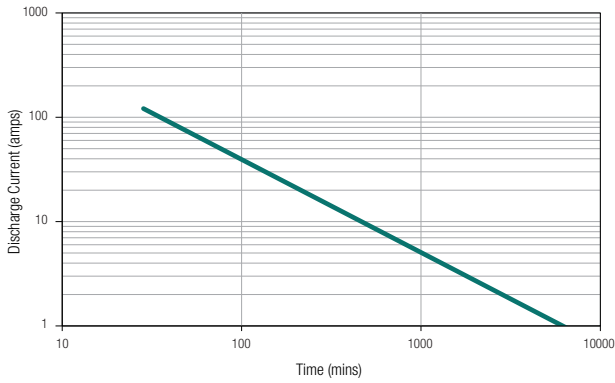
**RECYCLE RESPONSIBLY**



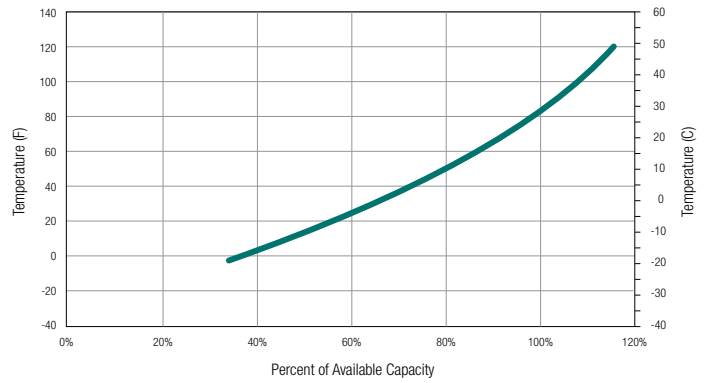
**STATE OF CHARGE MEASURE OF OPEN-CIRCUIT VOLTAGE**

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

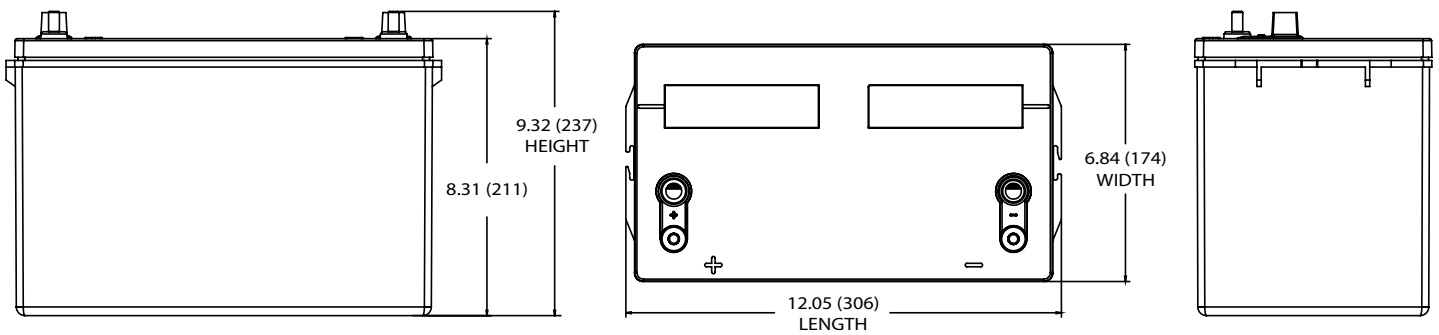
## TROJAN 27-AES PERFORMANCE




## PERCENT CAPACITY VS. TEMPERATURE



## BATTERY DIMENSIONS (shown with DT)



## TERMINAL TYPE<sup>6</sup>

6	DT	AUTOMOTIVE POST & STUD TERMINAL
		
<b>Terminal Height Inches (mm)</b> 0.79 (20)		
<b>Torque Values in-lb (Nm)</b> Stud: 95 – 105 (11 – 12) / AP: 50 – 70 (6 – 8)		
<b>Bolt</b> 5/16"		

- 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) 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. Weight may vary.



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

