



MODEL: IND33-2V
DIMENSIONS: inches (mm)
BATTERY: Flooded/wet lead-acid battery
COLOR: Maroon (case/cover)
MATERIAL: Polypropylene (internal cell container)
 Polyethylene (outer container)

PRODUCT SPECIFICATION

BCI GROUP SIZE	TYPE	CAPACITY ^A Amp-Hours (AH)							ENERGY (kWh)	VOLTAGE	TERMINAL Type	DIMENSIONS ^B Inches (mm)			WEIGHT lbs. (kg)
		5-Hr Rate	10-Hr Rate	20-Hr Rate	48-Hr Rate	72-Hr Rate	100-Hr Rate	240-Hr Rate				100-Hr Rate	Length	Width	
INDUSTRIAL LINE - DEEP-CYCLE FLOODED BATTERIES															
N/A	IND33-2V	1422	1646	1794	2072	2173	2187	2206	4.37	2 VOLT	14	17-1/3 (440)	10-1/4 (260)	24 (610)	278 (125)

CAPACITY AMP-HOURS (AH)

Cutoff Voltage	5-Hr	10-Hr	20-Hr	48-Hr	72-Hr	100-Hr	240-Hr
1.75 vpc	1422	1646	1794	2072	2173	2187	2206
1.80 vpc	1310	1547	1722	2030	2130	2138	2172
1.85 vpc	1179	1382	1578	1867	1989	2016	2021
1.90 vpc	868	1119	1309	1641	1763	1790	1805

CHARGING INSTRUCTIONS

CHARGER VOLTAGE SETTINGS (AT 77°F/25°C)	
	Voltage per cell
Absorption charge	2.35-2.45
Float charge	2.20
Equalize charge	2.58

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.

OPERATIONAL DATA

Operating Temperature	Self Discharge	Specific Gravity
-4°F to 113°F (-20°C to +45°C). At temperatures below 32°F (0°C) maintain a state of charge greater than 70%.	Up to 4% per week	The specific gravity at 100% state-of-charge is 1.260

CHARGING TEMPERATURE COMPENSATION

To the Voltage Reading -- Subtract 0.005 volt per cell (VPC) for every 1°C above 25°C or add 0.005 volt per cell for every 1°C below 25°C.

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, GEL, and AGM alike and even small increases in temperature will have a major influence on battery life.

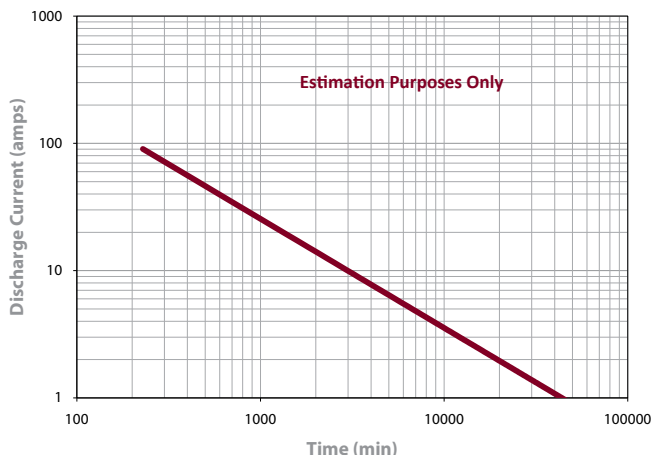
A. The amount of amp-hours (AH) a battery can deliver when discharged at a constant rate at 80°F (27°C) for Industrial Lines and maintain a voltage above 1.75 V/cell. Capacities are based on peak performance.
 B. Dimensions are based on nominal size. Dimensions may vary depending on type of handle or terminal. Batteries to be mounted with .5 inches (12.7 mm) spacing minimum.
 C. Dimensions taken from bottom of the battery to the highest point on the battery. Heights may vary depending on type of terminal.
 Trojan's battery testing procedures adhere to both BCI and IEC test standards.

IND33-2V DATA SHEET

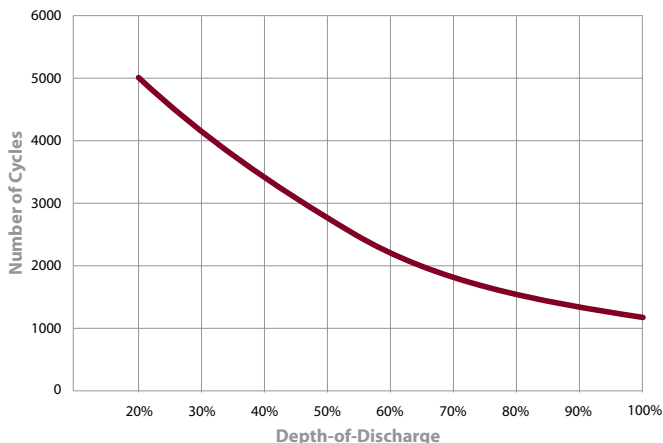
for Renewable Energy and Backup Power Applications

INDUSTRIAL LINE

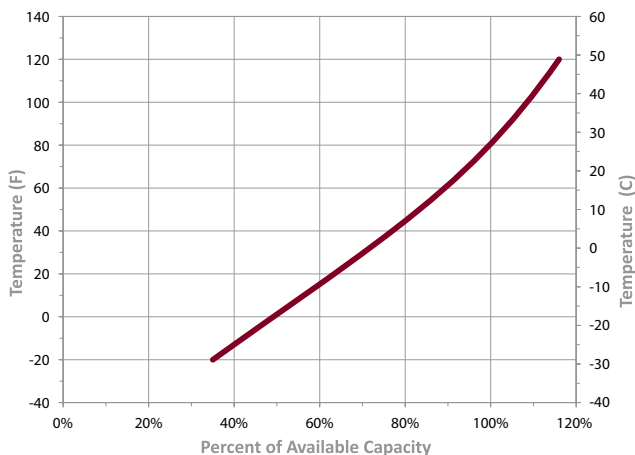
TROJAN IND33-2V PERFORMANCE



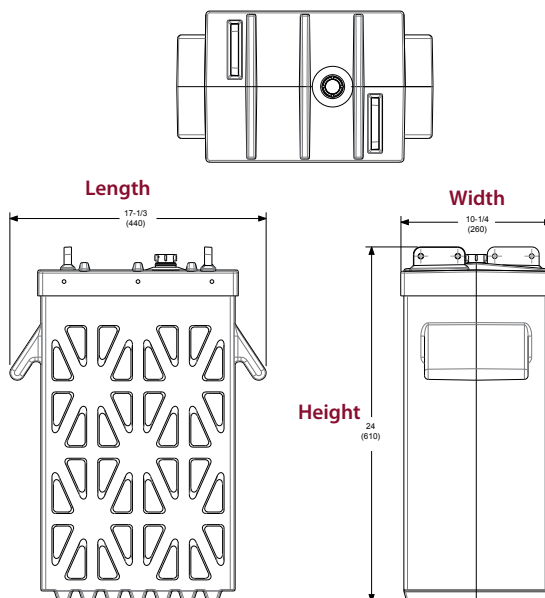
TYPICAL CYCLE LIFE IN A STATIONARY APPLICATION




PERCENT CAPACITY VS. TEMPERATURE



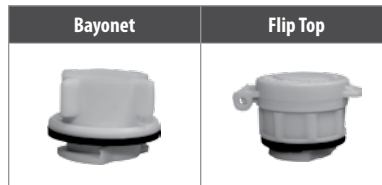
BATTERY DIMENSIONS



TERMINAL CONFIGURATIONS

14	IND	Ind Terminal
		
<i>Terminal Height Inches (mm)</i> 1-3/4 (44)		
<i>Torque Values LB-IN (Nm)</i> 100 - 120 (11 - 14)		
<i>Through-hole Diameter Inches (mm)</i> 3/8 (9.5)		

VENT CAP OPTIONS



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**
 12380 Clark Street, Santa Fe Springs, CA 90670 • USA or email re@trojanbattery.com