

## IND9-6V DATA SHEET

for Renewable Energy / Hybrid Systems / Backup Power Applications

### INDUSTRIAL LINE

MODEL:	IND9-6V
DIMENSIONS:	inches (mm)
BATTERY:	Flooded/wet lead-acid battery
COLOR:	Maroon (case/cover)
MATERIAL:	Polypropylene (internal cell container) Polyethylene (outer container)



### SMART CARBON<sup>™</sup>

Deep-cycle batteries used in off-grid and unstable grid applications are heavily cycled at partial state of charge (PSOC). Operating at PSOC on a regular basis can quickly diminish the overall life of a battery, which results in frequent and costly battery replacements.

To address the impact of PSOC on deep-cycle batteries in renewable energy (RE), inverter backup and telecom applications, Trojan Battery has now included Smart Carbon™ as a standard feature in its Industrial and Premium flooded battery lines.

### **PRODUCT SPECIFICATIONS**

BCI GROUP	ТҮРЕ	CAPACITY <sup>^</sup> Amp-Hours (AH)						ENERGY (kWh)		TERMINAL	DIMENSIONS <sup>B</sup> Inches (mm)			WEIGHT	
SIZE		5-Hr Rate	10-Hr Rate	20-Hr Rate	48-Hr Rate	72-Hr Rate	100-Hr Rate	240-Hr Rate	100-Hr Rate	VOLTAGE	Type <sup>D</sup>	Length	Width	Height <sup>C</sup>	lbs. (kg)
	INDUSTRIAL LINE - DEEP-CYCLE FLOODED BATTERIES														
N/A	IND9-6V	365	414	464	545	580	601	604	3.61	6 VOLT	14	15.32 (389)	10.24 (260)	23.54 (598)	220 (100)

### CAPACITY AMP-HOURS (AH)

Cutoff Voltage	5-Hr	10-Hr	20-Hr	48-Hr	72-Hr	100-Hr	240-Hr
1.75 vpc	365	414	464	545	580	601	604
1.80 vpc	329	389	445	530	566	588	590
1.85 vpc	300	352	409	474	516	554	555
1.90 vpc	222	285	342	396	439	492	493

### **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.

### **EXPECTED LIFE VS. TEMPERATURE**

### **OPERATIONAL DATA**

Operating Temperature	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%.	The specific gravity at 100% state-of-charge is 1.260			

### **CHARGING TEMPERATURE COMPENSATION**

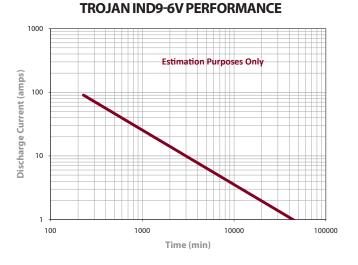
To the Voltage Reading -- Subtract 0.005 volt per cell (VPC) for every 1°C above 25°C or add 0.005 volt per cell for every 1°C below 25°C.

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.

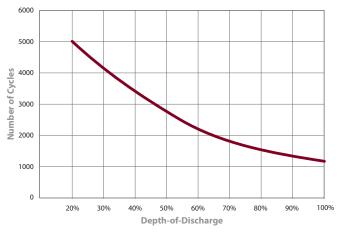
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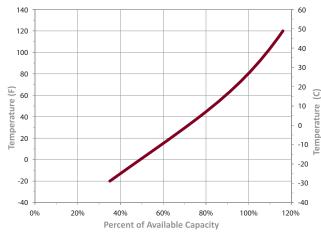
### INDUSTRIAL LINE



#### **TYPICAL CYCLE LIFE IN A STATIONARY APPLICATION**

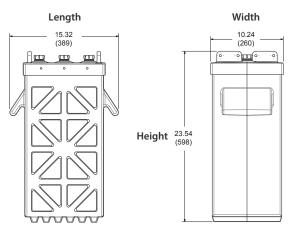


#### PERCENT CAPACITY VS. TEMPERATURE



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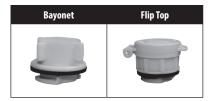
**BATTERY DIMENSIONS** 



### **TERMINAL\*\* CONFIGURATIONS**



### VENT CAP OPTIONS



- A. The amount of amp-hours (AH) a battery can deliver when discharged at a constant rate at 80°F (27°C) 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.
- 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 Premium Line is tested to BCI and IEC 61427 standards. • Additional Terminals Available





### We offer outstanding technical support, provided by full-time application engineers. call 800.423.6569 or + 1.562.236.3000 or visit www.trojanbattery.com

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Trojan batteries are available worldwide.

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