



MODEL	SIND 04 2145
VOLTAGE	4V
CAPACITY	2145Ah @ 100Hr
MATERIAL	Polypropylene (internal cell container) Polyethylene (outer container)
DIMENSIONS	Inches (mm)
BATTERY	Deep-Cycle Flooded/Advanced Lead Acid Battery
COLOR	Maroon
WATERING	Single-Point Watering Kit (Optional)
PRODUCT HIGHLIGHTS	Smart Carbon™ for Improved Performance17 Years Battery Life Based on IEC 61427

PRODUCT + PHYSICAL SPECIFICATIONS

Model	Terminal Type ^D	Dimensions ^B Inches (mm)			Weight ^E Lbs. (kg)	HydroLink or SPWK	Handles
		Length	Width	Height ^C		SPWK	Molded
SIND 04 2145	14	27.22 (691)	10.44 (265)	24.01 (610))	465 (211)		

ELECTRICAL SPECIFICATIONS

4V

Voltage	Voltage Capacity ^A Amp-Hours (Ah)					Energy (kWh)
414	10-Hr	20-Hr	48-Hr	72-Hr	100-Hr	100-Hr
4V	1474	1647	1896	2030	2145	8.58

CHARGING INSTRUCTIONS

Charger Voltage Settings (at 77°F/25°C)				
12V 24V 48V				
13%				
4				
14.40	28.80	57.60		
13.50	27.00	54.00		
16.20	32.40	64.80		
	12V 14.40 13.50	12V 24V 13% 4 14.40 28.80 13.50 27.00		

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.

*If charging time is limited contact Trojan Technical Support for assistance.

**In cases where controller has a bulk voltage setting, use absorption voltage setting above.



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



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TROJAN BATTERY COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV =ISO 9001:20

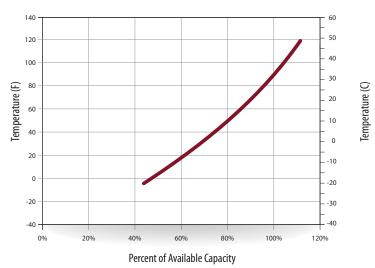
CHARGING TEMPERATURE COMPENSATION

Add	Subtract
0.005 volt per cell for every 1°C below 25°C	0.005 volt per cell for every 1°C above 25°C
0.0028 volt per cell for every 1°F below 77°F	0.0028 volt per cell for every 1°F above 77°F

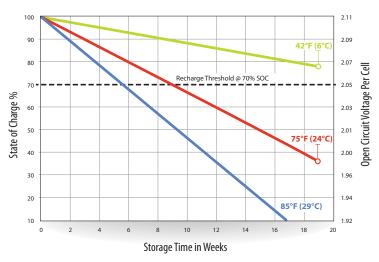
OPERATIONAL DATA

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%.	5 – 15% per month depending on storage temperature conditions.

PERCENT CAPACITY VS. TEMPERATURE



SELF DISCHARGE VS. TIME*



*PERIODIC CHARGE

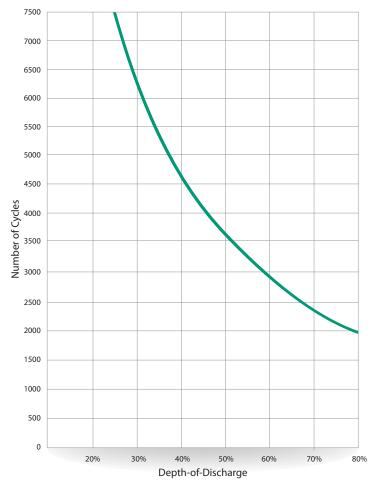
FREQUENCY

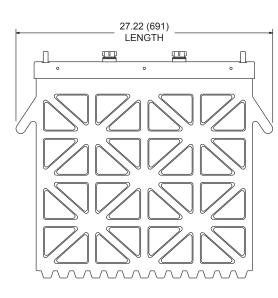
Provide a periodic freshening charge to maintain a SOC greater than the threshold of 70%.

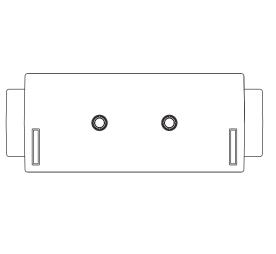
STATE OF CHARGE MEASURE OF OPEN-CIRCUIT VOLTAGE

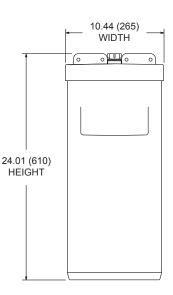
Percentage Charge	Specific Gravity	Cell	4-Volt
100	1.260	2.110	4.22
90	1.246	2.090	4.18
80	1.227	2.070	4.14
70	1.207	2.050	4.10
60	1.187	2.030	4.06
50	1.165	2.010	4.02
40	1.142	1.990	3.98
30	1.119	1.960	3.92
20	1.096	1.940	3.88
10	1.072	1.920	3.84

DOD VS CYCLE LIFE IN A STATIONARY APPLICATION

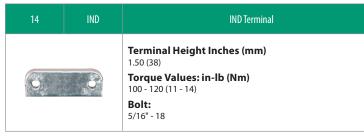








TERMINAL CONFIGURATIONS[®]



VENT CAP OPTIONS



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.

SMART CARBON™

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 Solar Industrial and Solar Premium flooded battery lines.

A. The amount of amp-hours (Ah) a battery can deliver when discharged at a constant rate at 86°F (30°C) and maintain a voltage above 1.75 V/cell. Capacities are based on peak performance.
B. Dimensions may vary depending on type of handle or terminal. Batteries should be mounted with 0.5 inches (12.7 mm) spacing minimum. C. Height 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. E. Weight may vary.

SIND_04_2145_DS_083017

Trojan.

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