

DEVELOPED
IN THE
USA



TROJAN'S INTELLIGENT
LITHIUM ION BATTERY
DELIVERS MORE
RUNTIME, LIFETIME,
AND PEACE OF MIND.

TRILLIUM[®]

T R O J A N I N T E L L I G E N T L I T H I U M



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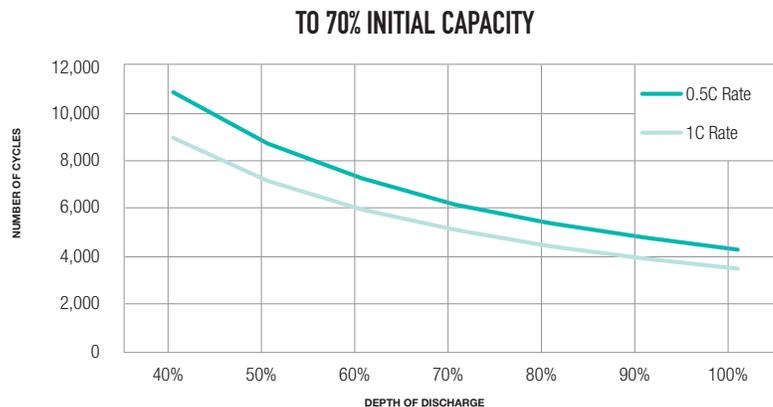
Designed and engineered in the USA, Trillium[®], Trojan's Intelligent Lithium battery, can be used in a variety of stationary and motive power applications. From its superior cell and battery design to its intelligent, built-in diagnostics, Trillium offers a range of advanced safety, environmental and electronic features not found in competitive products. With life expectancy well over 5,000 cycles, Trillium will deliver outstanding return on investment over time, plus the legendary quality Trojan Battery is known for.

COMMON APPLICATIONS

- ◆ DEEP-CYCLE LEAD-ACID REPLACEMENT
- ◆ GOLF CARS & LSEV
- ◆ MARINE AND RV
- ◆ UTILITY VEHICLES
- ◆ AERIAL WORK PLATFORMS
- ◆ SOLAR & STORAGE
- ◆ FLOOR MACHINE
- ◆ AND MORE...

TRILLIUM CYCLE LIFE CHART

This chart illustrates the expected cycle life as a function of DOD to 70% of initial capacity.



TR 12.8-92 Li-ION

>5,000 CYCLES @ 80% DOD
12.8V NOMINAL VOLTAGE
92Ah CAPACITY

INTELLIGENCE FEATURES

Microprocessor Cell Balancing
CAN Communications Battery Management System
SOC Gauge



TR 12.8-110 Li-ION

>5,000 CYCLES @ 80% DOD
12.8V NOMINAL VOLTAGE
110Ah CAPACITY

INTELLIGENCE FEATURES

Microprocessor Cell Balancing
SOC Gauge Battery Management System

WHY TROJAN INTELLIGENT LITHIUM ION?

SUPERIOR CELL SELECTION

Trillium features a Trojan-specific cell, which undergoes rigorous quality control checks and inspection to ensure the highest quality. It's cobalt-free and nickel-free, and it features the industry's safest chemistry.

Most importantly, Trillium features extraordinary life—greater than 5,000 cycles—and this power is packed into a battery footprint that's 20 percent smaller than competitive offerings.

SUPERIOR BATTERY DESIGN

Trillium has automotive-grade components for durability, safety, and a current sensor, fuse, and temperature sensor. It's waterproof and dust proof, with an IP67 environmental rating—the highest in its class by far.

Trillium is designed to be a true replacement for deep-cycle lead-acid batteries and can be used with existing lead-acid chargers with AGM/GEL settings (I-E profile).

SUPERIOR ELECTRONICS

Trillium offers unique, advanced electronic features such as a visual SOC (state of charge) gauge on the top of the battery.* A microprocessor* ensures the battery is completely self-protected, and if a problem is detected, will turn itself off. When a problem goes away, it turns back on, automatically self-healing.

Integrated Controller Area Network (CAN)** communications share important battery data that includes state of charge and temperature information with other devices.

SUPERIOR PERFORMANCE

Trillium gives you more runtime and a longer life than competitors' batteries in its class and delivers consistent power across the state of charge range. It can be charged in less than two hours. It features a simple system that is scalable up to 48 volt applications.

SUPERIOR OPPORTUNITY

Trillium is designed and engineered in the USA by Trojan, the world's leading supplier of deep-cycle batteries for nearly 100 years. You can be confident Trillium is the highest quality product on the market—backed by Trojan's extraordinary customer support.



THE TROJAN ADVANTAGE

- ◆ World's leading manufacturer of advanced deep-cycle battery technology
- ◆ Worldwide reputation for best return on investment, durability, performance, and quality components
- ◆ Outstanding technical and customer service
- ◆ Industry leader in health and safety compliance as well as environmental stewardship



TR 25.6-25 Li-ION

>5,000 CYCLES @ 80% DOD
25.6V CHARGE VOLTAGE
25Ah CAPACITY

INTELLIGENCE FEATURES

Cell Balancing



*TR 12.8-92 Li-Ion and TR 12.8-110 Li-Ion
**TR 12.8-92

CELL SELECTION

- ◆ Proven safest chemistry
- ◆ Longest life in its class
- ◆ Highest capacity in its class
- ◆ US-based cell development
- ◆ Trojan-specific cell
- ◆ UN38.3; UL 1642; IEC 62133

BATTERY DESIGN

- ◆ Easy replacement for lead-acid
- ◆ Robust case, IP67 rating
- ◆ Automotive-grade safety protection
- ◆ Current sensor, fuse, temp. sensor
- ◆ Validated charger compatibility

ELECTRONICS

- ◆ Visual SOC gauge*
- ◆ Microprocessor-based controls*
- ◆ CAN-communications**
- ◆ US-based development

TRILLIUM PRODUCT, PHYSICAL, AND ELECTRICAL SPECIFICATION GUIDE

MODEL NAME	VOLTAGE	NOMINAL CAPACITY	CAPACITY AMP-HOURS (Ah)			ENERGY (kWh)	SHORT CIRCUIT CURRENT (A)	BCI	TERMINAL TYPE	DIMENSIONS INCHES (mm)			WEIGHT LBS. (kg)
			5-HR (18A)	10-HR (9A)	20-HR (5A)					20-HR	LENGTH	WIDTH	
TR 12.8-92 Li-Ion	12.8V	92Ah (1,180Wh)	92	92	92.5	1.18	Fused @ 400 Amps	Group 24	M8-1.25 Threaded Hole	10.16 (258)	6.61 (168)	8.50 (216)	27 (12)
TR 12.8-110 Li-Ion	12.8V	110Ah (1,400Wh)	110	110	111	1.42	Fused @ 500 Amps	Group 27	5/16"-18 Stud and 1/4"-20 Threaded Hole	12.07 (307)	6.57 (167)	8.63 (219)	30 (14)
TR 25.6-25 Li-Ion	25.6V	25Ah (640Wh)	25	25	25.5	0.64	Fused @ 125 Amps	Group U1	M6-1.0 Threaded Hole	7.76 (197)	5.20 (132)	6.74 (171)	12 (5)

TRILLIUM OPERATIONAL SPECIFICATIONS

MODEL NAME	CONTINUOUS DISCHARGE CURRENT	PULSE DISCHARGE CURRENT @77°F (25°C)	COMM.	RESERVE CAPACITY @25 AMPS	BMS PROTECTION	BMS FUNCTIONS	SAFETY SYSTEMS	SERIES CONN.	PARALLEL CONN.	DISCHARGE VOLTAGE CUTOFF	CHARGE VOLTAGE CUTOFF	OPERATING TEMP. RANGE*	STORAGE TEMP. RANGE
TR 12.8-92 Li-Ion	92 Amps	250 Amps for 30 secs	CAN-Open	220 min	Cell-Level Voltage, Temp, Over Voltage, Under Voltage, Over-Current	Cell Balancing, State of Charge	Contractor, Fuse, BMS	Up to 4S (51.2V)	Up to 20P	10.0V ± 5%	15.6V ± 5% for 5 sec	-4°-140°F (-20°-60°C)	-40°-140°F (-40°-60°C)
TR 12.8-110 Li-Ion	110 Amps	250 Amps for 30 secs	N/A	265 min	Cell-Level Voltage, Temp, Over Voltage, Under Voltage, Over-Current	Cell Balancing, State of Charge	Contractor, Fuse, BMS	Up to 4S (51.2V)	Up to 20P	9.2V ± 5%	15.2V ± 5% for 5 sec	-4°-140°F (-20°-60°C)	-40°-140°F (-40°-60°C)
TR 25.6-25 Li-Ion	25 Amps	70 Amps instantaneous	N/A	60 min	Cell-Level Voltage, Temp, Current	Cell Balancing	MOSFETs, Fuse, Protection Control Module (PCM)	Up to 2S (51.2V)	Up to 20P	16.0V ± 5%	30.4V ± 5% for 5 sec	-4°-140°F (-20°-60°C)	-40°-140°F (-40°-60°C)

*Maximum charge current reduced with temperature. See Datasheet or User's Guide.



DO NOT MIX WITH LEAD-ACID BATTERIES WHEN RECYCLING.

*TR 12.8-92 Li-Ion and TR 12.8-110 Li-Ion
 **TR 12.8-92



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